April 2014

EZH and EZHSO Series Pressure Reducing Regulators

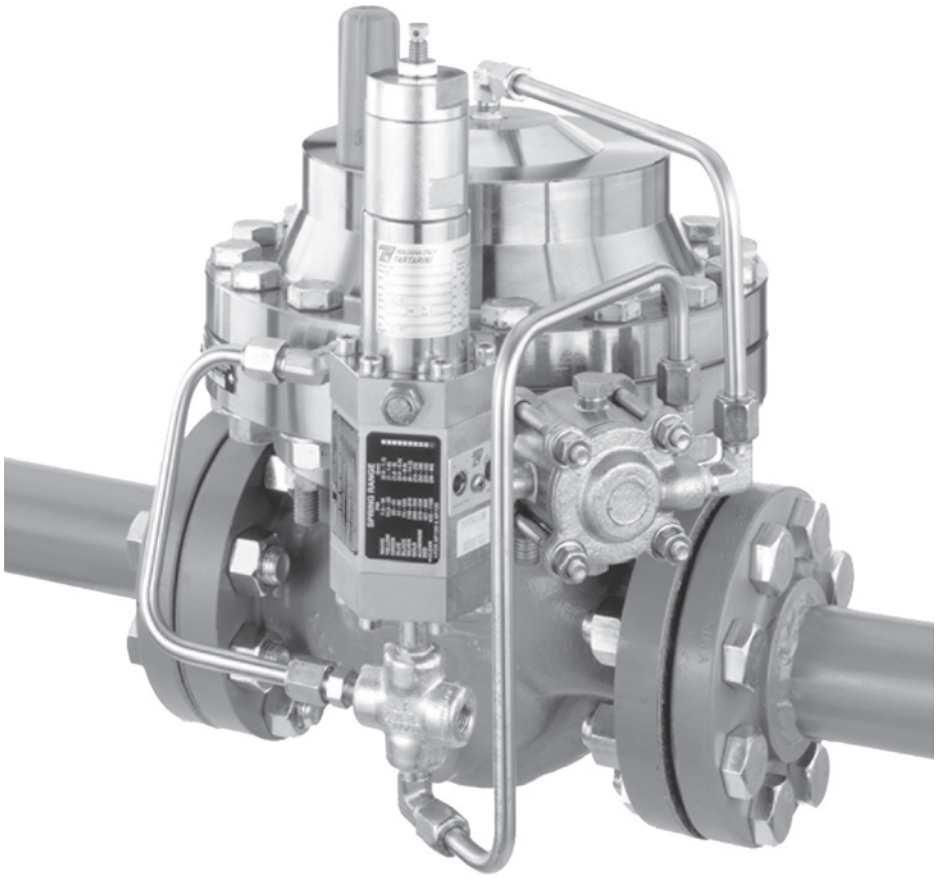

Figure 1. *Type EZH Pressure Reducing Regulator*

- **1500 psig / 103 bar Inlet / Outlet Rating**
- **Common Body Platform**
- **Bubble-Tight Shutoff**
- **In-Line Maintenance**
- **Long Life in Severe Service Applications**
- **NPS 1 through 4 / DN 25 through 100 Body Sizes Available**
- **Spring-to-Close and Spring-to-Open Versions**
- **No Atmospheric Bleed**
- **Integral Slam Shut Configurations Available**
- **Full Usable Capacity**
- **Precise Pressure Control**
- **High Turn Down Capability**
- **Optional Whisper Trim™ Cage Noise Abatement (Up to 8 dBA)**
- **Integral Slam Shut for Overpressure and Underpressure Protection**

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Features

- **Long Life in Severe Service Applications**—The EZH and EZHSO Series utilize a metal plug design to deflect particles and debris away from the soft-seat, which gives enhanced resistance to particle erosion to provide a longer service life. In addition, the EZH and EZHSO Series can be constructed with Fluorocarbon (FKM) soft parts to extend service life in applications where liquid aromatics are entrained in the gas.
- **Main Diaphragm**—The main diaphragm is Nitrile (NBR) reinforced with fabric and coated with a PVC, which protects and extends the service life of the regulator in applications where the liquids commonly found in natural gas pipelines tend to shorten diaphragm life.
- **Common Body Platform**—The EZH and EZHSO Series use the same standard Fisher® E-Body which is also used in Type EZR pressure reducing regulator and Types EZ, ES, ED and ET pressure reducing control valves. This will allow easy conversion from one product to another without the need to remove the E-Body from the pipeline.
- **Spring-to-Close and Spring-to-Open Versions**—Optional positions to choose from in case of main valve diaphragm failure or lack of supply pressure to the pilot.
- **Bubble-Tight Shutoff**—The EZH and EZHSO Series have knife-edged, metal plug and a soft seat which provide bubble tight shutoff for use in applications where positive shutoff is required. For example: dead-end systems.
- **No Atmospheric Bleed**—The EZH and EZHSO Series eliminate nuisance and wasteful bleed gas to atmosphere by utilizing a pilot-operated two-path control system, which bleeds 100% of the gas to the downstream system while the regulator is operating.
- **High Turn Down Capability**—The oversized diaphragm and unique piloting system of the EZH and EZHSO Series allow for high turn down, which will provide superior pressure control in systems with large variations in downstream flow demand.
- **In-Line Maintenance**—Top entry design provides easier maintenance. Trim parts can be inspected, cleaned and replaced without removing the body from pipeline.
- **Noise Abatement Trim**—The EZH and EZHSO Series offer an optional Whisper Trim™ Cage which is integral to the regulator. Allows for a noise attenuation of up to 8 dBA.
- **Precise Pressure Control**—The EZH and EZHSO Series use the PRX Series and Type SA/2 pilot system to provide stable and accurate downstream pressure control regardless of load changes or inlet pressure variations.
- **Full Pressure Rating**—The EZH and EZHSO Series have equal inlet and outlet pressure rating of 1500 psig / 103 bar, which allows easier selection and requires no special startup or shutdown procedures.
- **Full Usable Capacity**—Fisher brand regulators are laboratory tested. 100% of the published flow capacity can be used with confidence.
- **Disk Design**—The EZH and EZHSO Series offer disks for the main body made from Nitrile (NBR), Fluorocarbon (FKM) and Polyurethane (PU). Polyurethane (PU) provides better abrasion resistance properties and a high durometer rating to extend the working life of the disk in difficult applications where disk erosion is an issue.
- **O-ring Design**—The EZH and EZHSO Series use elastomer O-rings instead of gaskets, reducing maintenance and assembly time.
- **Slam-Shut Protection**—Types EZHOSX and EZHSO-OSX discontinue gas service by shutting the gas off if there is an overpressure or underpressure condition.

Introduction

Types EZH (Spring-to-Close version) and EZHSO (Spring-to-Open version) regulators are accurate pilot-operated, pressure-balanced, soft-seated regulators. They are designed for use in high pressure natural gas transmission, city gate stations, large capacity distribution systems and power plant feeds. They provide smooth and reliable operation, tight shutoff and long life.

For underpressure or overpressure protection, the Types EZHOSX and EZHSO-OSX are available with an integral slam-shut device to completely shut off the flow of gas to the downstream system. The slam shut has a mechanism box and a manometric device. The manometric device is a spring and diaphragm actuator. Its movement activates the detection stage of the mechanism box. The shutoff is a two-stage process, the detection stage and the power stage. This separation between detection stage and power stage provides maximum precision, alleviating many false trips caused by environmental vibrations. The slam-shut device includes a bypass valve that will allow pressure to be equalized when resetting the device. Once the slam-shut device has been tripped, it must be manually reset.

Specifications

The Specifications section lists the specifications for the EZH and EZHSO Series pressure reducing regulators. Factory specification is stamped on the nameplate fastened on the regulator at the factory.

Available Configurations

Type EZH (Spring-to-Close): Pilot-operated pressure reducing regulator for low to high outlet pressure

Type EZHSO (Spring-to-Open): Pilot-operated pressure reducing regulator for low to high outlet pressure

Type EZHOSX: Type EZH with a Type OS2 slam-shut device for overpressure (OPSO) or overpressure and underpressure (OPSO/UPSO) protection

Type EZHSO-OSX: Type EZHSO with a Type OS2 slam-shut device for overpressure (OPSO) or overpressure and underpressure (OPSO/UPSO) protection

Body Sizes, End Connection Styles and Pressure Ratings(1)

See Table 1

Maximum Allowable Pressures(1)

Inlet Pressure: 1500 psig / 103 bar

Outlet (Casing) Pressure: 1500 psig / 103 bar

Emergency Casing Pressure: 1500 psig / 103 bar

Maximum Operating Differential Pressures(1)(3)

Main Valve: 1500 psid / 103 bar d

Pilot: *Between loading pressure in pilot and loading sense pressure:* 1233 psid / 85.0 bar d

Minimum Differential Pressures(1)

See Table 3

Outlet Pressure Ranges

See Table 2

Flow and Sizing Coefficients

See Tables 7 through 16

Flow Capacities

See Tables 17 through 20

Pilot and Filter Regulator Flow Coefficients

Type PRX Pilot: C_g: 10.5; C_v: 0.36; C_1: 29

Type SA/2 Filter Regulator: C_g: 4.9

Pressure Registration

External

Pilot Connections

1/4 NPT

Temperature Capabilities(1)

Nitrile (NBR) Version:
-20 to 180ºF / -29 to 82ºC

Fluorocarbon (FKM) Version:
0 to 180ºF / -18 to 82ºC(2)

Polyurethane (PU) Version:
-22 to 180ºF / -30 to 82ºC

Options

- Pre-piped Pilot Supply
- Travel Indicator
- Whisper Trim™ Cage (NPS 2 to 4 / DN 50 to 100 Sizes Only)

Construction Materials

Main Valve

Main Valve Body:
Types EZH and EZHSO: WCC Steel
Types EZHOSX and EZHSO-OSX: LCC Steel
Intermediate Flange and Actuator Casings: Steel, ASTM A350 LF2
Diaphragm Plates: Steel, ASTM A105
Diaphragm: Nitrile (NBR) with PVC coating
O-ring: Fluorocarbon (FKM)
Disk: Nitrile (NBR), Fluorocarbon (FKM) or Polyurethane (PU)

PRX Series Pilots

Body: Steel, ASTM 105
Trim: Stainless steel
Elastomers: Nitrile (NBR) or Fluorocarbon (FKM)
Disk: Polyurethane (PU) or Fluorocarbon (FKM)

Type SA/2 Pilot Supply Filter Regulator

Body: Steel
Diaphragm: Nitrile (NBR) with PVC coating
O-ring/Disk: Nitrile (NBR) or Fluorocarbon (FKM)

Type OS2 Slam-Shut Device

Mechanism Box: Aluminum alloy
First and Second Stage Mechanism: WCC Steel
Diaphragm: Nitrile (NBR)
Bellows: 316 Stainless steel

Approximate Weights

See Table 22

1. The pressure/temperature limits in this Bulletin and any applicable standard or code limitation should not be exceeded.
2. Types PRX and SA/2 Fluorocarbon (FKM) elastomer is limited to 0°F / -18°C.
3. Maximum Operating Differential Pressure is 1400 psid / 96.5 bar d for NPS 1 / DN 25 Type EZHSO.

Table 1. *Main Valve Body Sizes, End Connection Styles and Body Ratings*

MAIN VALVE BODY SIZE		MAIN VALVE BODY MATERIAL	END CONNECTION STYLE	STRUCTURAL DESIGN RATING	
NPS	DN			psig	bar
1	25	LCC or WCC Steel	NPT or SWE	1500	103
			CL150 RF	290	20.0
			CL300 RF	750	51.7
			CL600 RF or BWE	1500	103
2	50		NPT or SWE	1500	103
			CL150 RF	290	20.0
			CL300 RF	750	51.7
			CL600 RF or BWE	1500	103
3	80		CL150 RF	290	20.0
			CL300 RF	750	51.7
			CL600 RF or BWE	1500	103
4	100		CL150 RF	290	20.0
			CL300 RF	750	51.7
			CL600 RF or BWE	1500	103

Table 2. *Outlet Pressure Ranges*

TYPE	OUTLET PRESSURE RANGE		AC (ACCURACY CLASS)		PILOT CONTROL SPRING INFORMATION	
	psig	bar	Type EZH	Type EZHSO	Spring Color	Part Number
PRX/120 PRX/125	14.5 to 26 23 to 44 41 to 80 73 to 123	1.00 to 1.8 1.6 to 3.0 2.8 to 5.5 5.0 to 8.5	2.5% 2.5% 2.5% 2.5%	2.5% 2.5% 2.5% 2.5%	Yellow Green Blue Black	M0255240X12 M0255230X12 M0255180X12 M0255220X12
	116 to 210 203 to 334 319 to 435	8.0 to 14.5 14.0 to 23.0 22.0 to 30.0	1% 1% 1%	2.5% 2.5% 2.5%	Silver Gold Aluminum	M0255210X12 M0255200X12 M0255860X12
PRX/120-AP PRX/125-AP	435 to 1160	30.0 to 80.0	1%	2.5%	Clear	M0273790X12

Table 3. *Minimum Differential Pressures(1)*

TYPE	MAIN VALVE BODY SIZE		MINIMUM DIFFERENTIAL			
	NPS	DN	For 90% Capacity		For 100% Capacity	
			psid	bar d	psid	bar d
EZH	1	25	15.2	1.1	15.7	1.1
	2	50	12.0	0.83	13.8	0.95
	3	80	10.6	0.73	12.8	0.88
	4	100	15.8	1.1	16.4	1.1
EZHSO	1	25	55	3.8	55	3.8
	2	50	55	3.8	55	3.8
	3	80	55	3.8	55	3.8
	4	100	55	3.8	55	3.8

1. When using a Type SA/2 pilot supply filter regulator, the differential pressure across the regulator must be a least 45 psid / 3.1 bar d for optimum regulator performance.

Pilot Descriptions

The EZH and EZHSO Series pressure reducing regulators include a PRX Series pilot mounted on the EZH and EZHSO Series main valves for pressure-reducing or monitoring applications. PRX Series pressure reducing pilots have the ability to handle a wide range of setpoints from 14.5 to 1160 psig / 1.00 to 80.0 bar.

Type PRX/120: Outlet pressure range of 14.5 to 435 psig / 1.00 to 30.0 bar. The Type PRX/120 can be used as the pilot on single stage pressure reducing regulators, as the monitor pilot or as the working pilot in wide-open monitor systems or as the working pilot for monitoring and working regulators in the working monitoring systems.

Type PRX/120-AP: Outlet pressure range of 435 to 1160 psig / 30.0 to 80.0 bar. The Type PRX/120-AP can be used as the pilot on single stage pressure reducing regulators, as the monitor pilot or as the working pilot in wide-open monitor systems or as the working pilot for monitoring and working regulators in the working monitoring systems.

Type PRX/125: Identical to the Type PRX/120 except the restriction screw is removed. The Type PRX/125 can only be used as the monitor override pilot on working monitor applications.

Type PRX/125-AP: Identical to the Type PRX/120-AP except the restriction screw is removed. The Type PRX/125-AP can only be used as the monitor override pilot on working monitor applications.

Pilot Supply Filter Regulator

The Type SA/2 pilot supply filter regulator provides a constant supply pressure to the PRX Series pilot that is approximately 45 psig / 3.1 bar over set pressure. The Type SA/2 has an integral 5-micron filter.

Principle of Operation

Type EZH - Spring-To-Close Version

Type EZH Single-Pilot Regulator

The pilot-operated Type EZH (Spring-to-Close Version) will fail in close position in the case of main valve diaphragm failure or lack of supply pressure to the pilot (see Table 4 for Failure Mode Analyses).

The pilot-operated Type EZH (Spring-to-Close Version) (Figure 2) uses inlet pressure as the operating medium, which is reduced through pilot operation to load the regulator actuator diaphragm (lower chamber). Outlet or downstream pressure opposes loading pressure in the actuator and also opposes the pilot control spring.

Pilot is supplied with pressure coming from pre-regulator Type SA/2, which reduces inlet pressure to the constant value of outlet pressure plus approximately 45 psi / 3.1 bar.

When outlet pressure drops below the setting of the pilot control spring, pilot control spring force on the pilot lower diaphragm opens the pilot valve disk, providing additional loading pressure to the lower chamber of the regulator actuator diaphragm. This diaphragm loading pressure opens the main valve disk, supplying the required flow to the downstream system. Any excess loading pressure in the lower chamber of the actuator diaphragm and on Type PRX escapes downstream through the bleed restriction in the pilot.

When the gas demand in the downstream system has been satisfied, the outlet pressure increases. The increased pressure is transmitted through the downstream control line and acts under the lower pilot diaphragm. This pressure exceeds the pilot spring setting and moves the Type PRX lower diaphragm, closing the orifice and interrupting the loading pressure supply to the lower chamber of the regulator actuator diaphragm. The excess loading pressure acting under the regulator actuator diaphragm and on the Type PRX lower pilot bleeds to the downstream system through a bleed restriction in the pilot.

A check valve, set at 75 psi / 5.2 bar is installed between outlet pressure and loading pressure impulse lines; this valve will protect the main valve diaphragm assembly from excessive differential pressure during startup if incorrect start up procedures are used. Do not exceed 75 psi / 5.2 bar differential pressure between the outlet pressure and loading pressure impulse lines.

Type EZHSO - Spring-To-Open Version

Type EZHSO Single-Pilot Regulator

The pilot-operated Type EZHSO (Spring-to-Open version) will fail in open position in the case of main valve diaphragm failure or lack of supply pressure to the pilot (see Table 4 for Failure Mode Analyses).

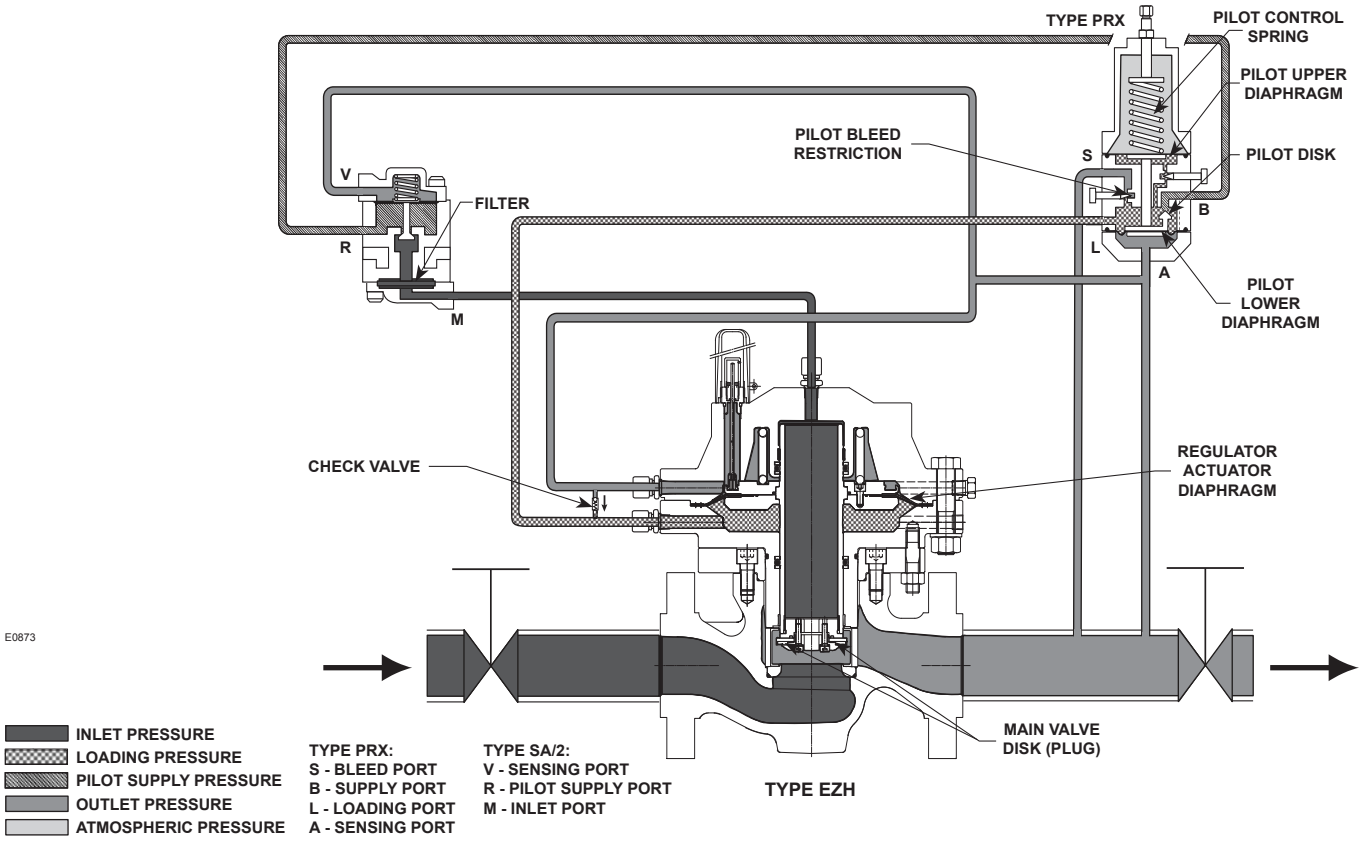


Figure 2. *Type EZH (Spring-to-Close Version) Operational Schematic*

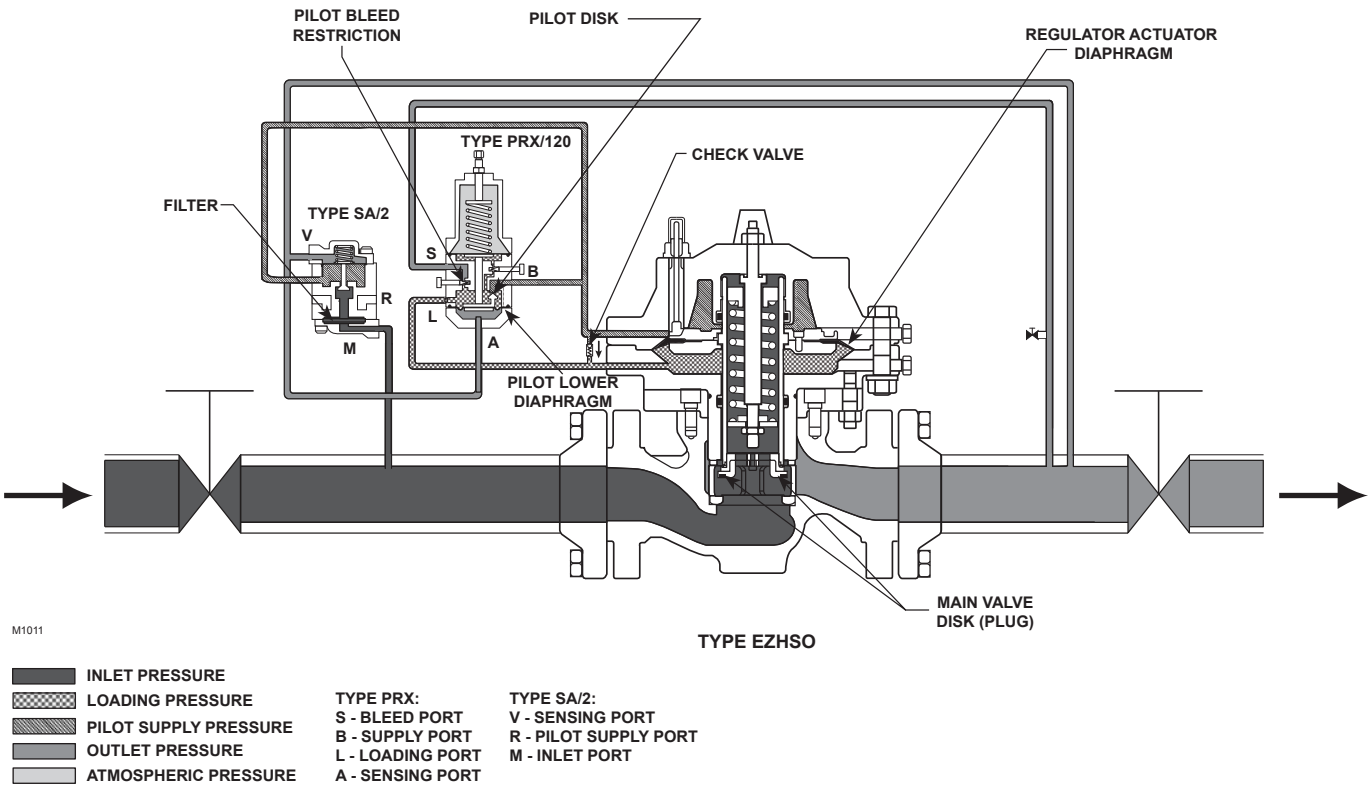


Figure 3. *Type EZHSO (Spring-to-Open Version) Operational Schematic*

Table 4. *Failure Mode Analyses*

PART NAME	CONDITION	CAUSE	EFFECT	REGULATOR TYPE	REGULATOR REACTION MODE	
Filter	Filter blocked / Clogged	Debris or aromatics present in the gas	Decrease of supply pressure gives decrease of loading pressure	EZHSO	Open	- - - -
				EZH	- - - -	Close
Pilot disk	Pilot cannot be closed	Debris or aromatics present, Sour gas	Increase loading pressure	EZHSO	Open	- - - -
				EZH	Open	- - - -
Pilot lower diaphragm	Pilot cannot control	Debris or aromatics present, Sour gas	Decrease loading pressure	EZHSO	Open	- - - -
				EZH	- - - -	Close
Pilot upper diaphragm	Pilot cannot feed the regulator	Debris or aromatics present, Sour gas	Decrease loading pressure	EZHSO	Open	- - - -
				EZH	- - - -	Close
Regulator diaphragm	Not proper performance of the loading pressure chamber	Debris or aromatics present, Sour gas	Balancing of Pressures and charge or discharge of the loading pressure chamber	EZHSO	Open	- - - -
				EZH	- - - -	Close
Pilot	Frozen pilot, Type SA/2 not working	Moisture in the gas, high pressure drop	Type SA/2 loading upper casing of regulator, Pilot not supplying loading pressure to lower casing	EZHSO	- - - -	Open
				EZH	- - - -	Close

Type EZHSO (Figure 3) uses inlet pressure as the operating medium, which is reduced through pilot operation to load the regulator actuator diaphragm (lower chamber). The upper chamber of Type EZHSO actuator and the PRX Series pilot are both supplied with pressure coming from pre-regulator Type SA/2, which reduces inlet pressure to the constant value of outlet pressure plus approximately 45 psi / 3.1 bar. This pressure on the upper chamber of the regulator actuator diaphragm opposes the main spring force that tends to open the regulator. Outlet or downstream pressure opposes the pilot control spring.

When outlet pressure drops below the setting of the pilot control spring, pilot control spring force on the pilot lower diaphragm opens the pilot valve disk, providing additional loading pressure to the lower chamber of the Regulator actuator diaphragm. This diaphragm loading pressure opens the main valve disk, supplying the required flow to the downstream system. Any excess loading pressure in the lower chamber of the regulator actuator diaphragm and Type PRX escapes downstream through the bleed restriction in the pilot.

When outlet pressure increases over the setting of the pilot spring, the pilot valve disk will be closed, reducing loading pressure to the lower chamber of the regulator actuator diaphragm; the pressure in the upper chamber will force the regulator to close.

A check valve, set at 75 psi / 5.2 bar is installed between inlet pressure to upper actuator casing and loading pressure impulse lines; this valve will protect the main valve diaphragm assembly from incorrect start-up procedures, avoiding excess high pressure differential between inlet and loading pressure.

Monitoring Systems

Monitoring regulation is overpressure protection by containment, therefore, there is no relief valve to vent to the atmosphere. When the working regulator fails to control the pressure, a monitor regulator installed in series, which has been sensing the downstream and control pressure, goes into operation to maintain the downstream pressure at a slightly higher value than normal set pressure. During an overpressure situation, monitoring keeps the customer on line. Also, testing is relatively easy. To perform a periodic test on a monitoring regulator, increase the outlet set pressure of the working regulator and watch the outlet pressure gauge to determine if the monitoring regulator takes over at the appropriate outlet pressure.

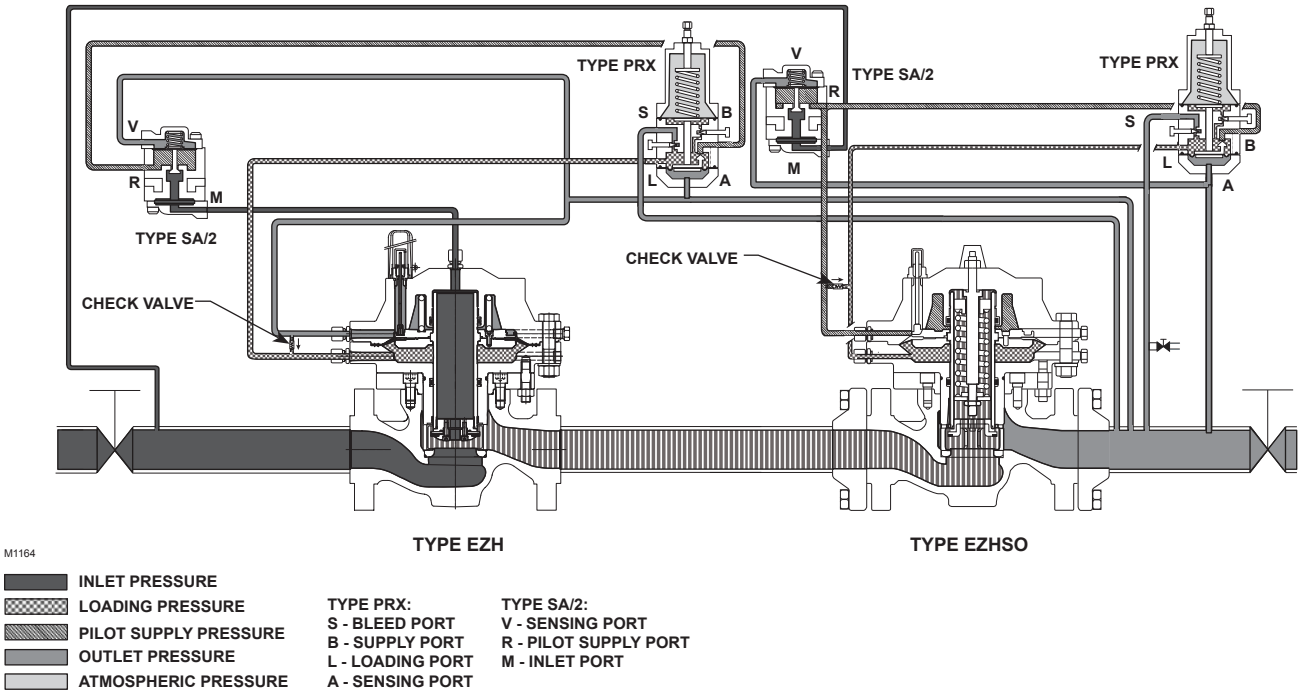


Figure 4. *Wide-Open Monitoring System Operational Schematic*

Wide-Open Monitoring Systems (Figure 4)

There are two types of wide-open monitoring systems: upstream and downstream. The difference between upstream and downstream monitoring is that the functions of the regulators are reversed. Systems can be changed from upstream to downstream monitoring and vice-versa, by simply reversing the setpoints of the two regulators. The decision to use either an upstream or downstream monitoring system is largely a matter of personal preference or company policy.

In normal operation of a wide-open configuration, the working regulator controls the system's outlet pressure. With a higher outlet pressure setting, the monitor regulator senses a pressure lower than its setpoint and tries to increase outlet pressure by going wide-open. If the working regulator fails, the monitoring regulator assumes control and holds the outlet pressure at its outlet pressure setting.

Figure 4 shows an upstream wide-open monitor Type EZH (fail-to-close) and a downstream active regulator Type EZHSO (fail-to-open). In this installation, if the Type EZHSO regulator no longer controls downstream pressure, it will remain open, letting the Type EZH monitor regulator take control of the downstream pressure. Should the Type EZH fail, the monitor regulator will close and protect the downstream system from overpressure condition.

Working Monitoring Regulators (Figure 5)

In a working monitoring system, the upstream regulator requires two pilots and it is always the monitoring regulator. The additional pilot permits the monitoring regulator to act as a series regulator to control an intermediate pressure during normal operation. In this way, both units are always operating and can be easily checked for proper operation.

In normal operation, the working regulator controls the outlet pressure of the system. The monitoring regulator's working pilot controls the intermediate pressure and the monitoring pilot senses the system's outlet pressure. If the working regulator fails, the monitoring pilot will sense the increase in outlet pressure and take control.

Working monitor installations require a Type EZH or EZHSO main valve with a Type PRX/120 or PRX/120-AP working pilot and a Type PRX/125 or PRX/125-AP monitoring pilot for the upstream regulator and a Type EZH or EZHSO with the appropriate Type PRX/120 or PRX/120-AP pilot for the downstream regulator.

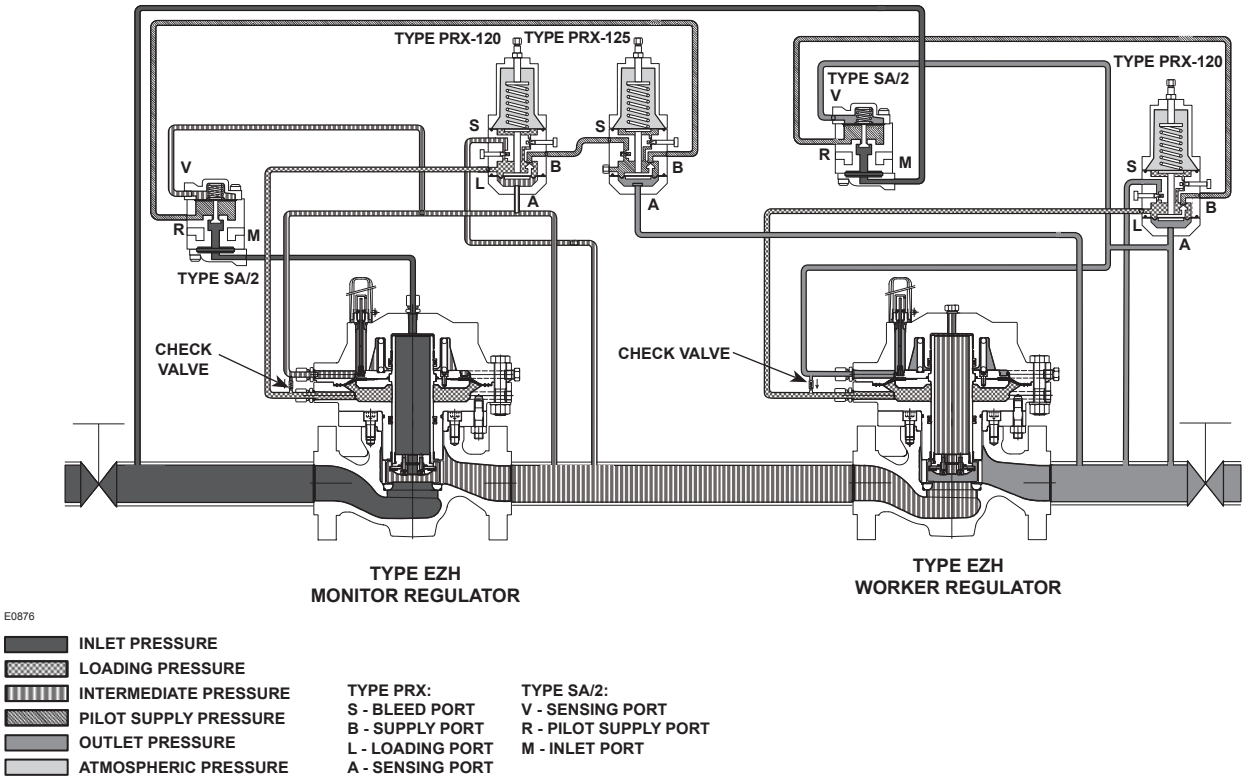


Figure 5. *Working Monitoring System Operational Schematic*

Overpressure Protection

Overpressuring any portion of a regulator or associated equipment may cause personal injury, leakage or property damage due to bursting of pressure-containing parts or explosion of accumulated gas. Provide appropriate pressure relieving or pressure limiting devices to ensure that the limits in the Specifications section are not exceeded. Regulator operation within ratings does not prevent the possibility of damage from external sources or from debris in the pipeline. Common methods of external overpressure protection include relief valves, monitoring regulators, shutoff devices and series regulation.

Types EZHOSX (Figure 6) and EZHSO-OSX regulators rely on the integrated slam-shut device for overpressure (OPSO) or overpressure and underpressure (OPSO/UPSO) protection. In the event that outlet pressure rises above or falls below the pressure setting, slam shut will completely shut off the flow of gas to the downstream system.

Installation

The EZH and EZHSO Series may be installed in any position, but it is normally installed in a horizontal pipeline with the pilot or pilots above the body. The optimal location for the sense and bleed lines is between the regulator and the downstream block valve. If the sense and bleed lines cannot be located between the EZH and EZHSO Series and downstream block valve, contact your local Sales Office for startup assistance. See Figures 2 and 3 for typical piping installations.

Note

To prevent damage to the pilot during startup, the sense and bleed lines should be located on the same side of the downstream block valve.

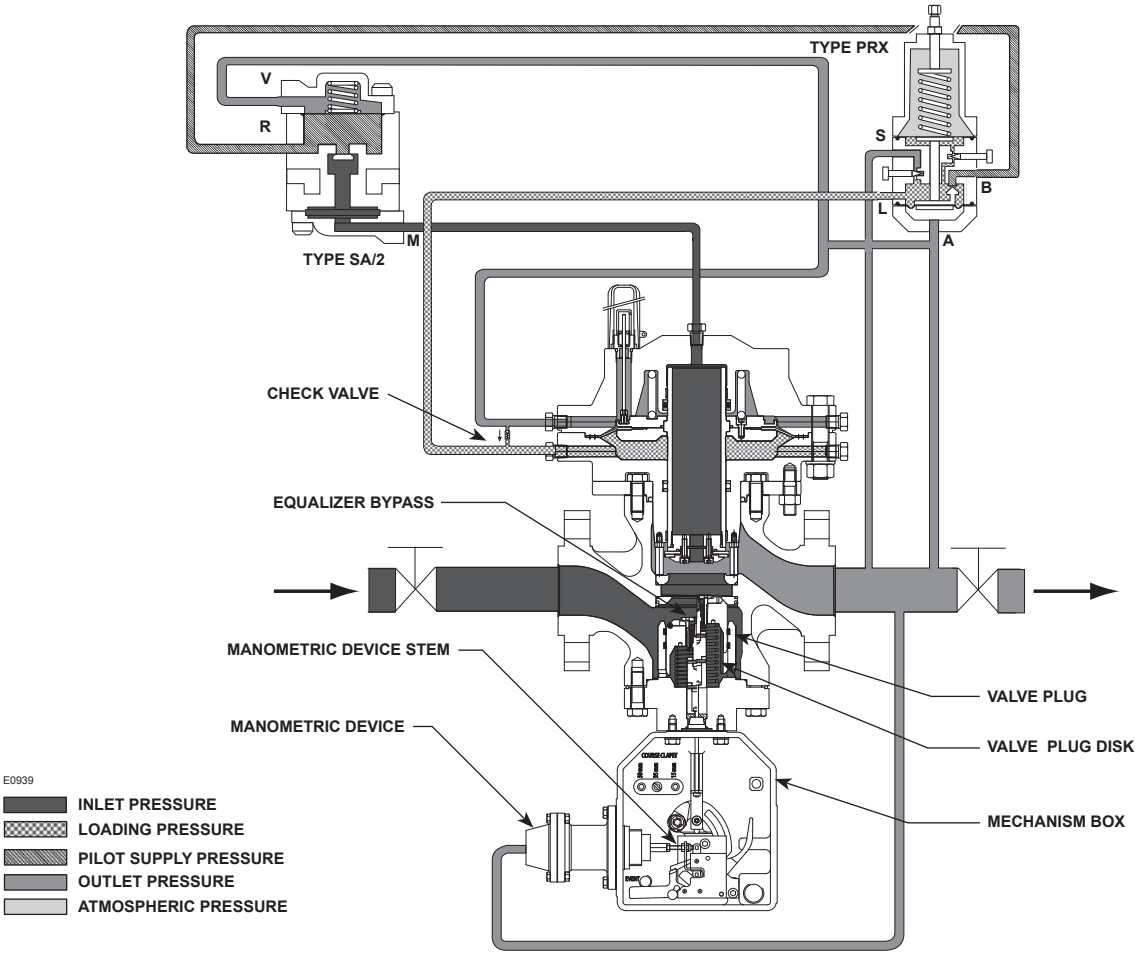


Figure 6. *Type EZHOSX Operational Schematic*

Noise Abatement Trim

Whisper Trim™ cage provides effective attenuation of aerodynamic noise in gas applications involving high pressure drop ratios. Aerodynamic noise is generated by the turbulence created in the flow of gas as the fluid passes through the port. To achieve effective noise attenuation, a Whisper Trim cage utilizes multiple orifices of special shape, size and spacing. These orifices break up turbulent fluid streams, reducing noise-producing interactions. **EZH and EZHSO Series with NPS 2 to 4 / DN 50 to 100 body sizes offer an optional Whisper Trim Cage to reduce noise by up to 8 dBA. See Figure 7 for Noise Level Comparisons.**

Slam-Shut Device Principle of Operation

The slam-shut device on Types EZHOSX (Figure 6) and EZHSO-OSX can provide either overpressure (OPSO) or overpressure and underpressure (OPSO/UPSO) protection by completely shutting off the flow of gas to the downstream system. The slam shut has a mechanism box and a manometric device. The manometric device is composed of spring and diaphragm actuator. Its movement activates the detection stage of the mechanism box. The shutoff is a two stage process, the detection stage and the power stage. This separation between detection stage and power stage provides maximum precision, alleviating many false trips caused by environmental vibrations. The slam-shut device includes a bypass valve that will allow pressure to be equalized when resetting the device. Once the slam-shut device has been tripped, it must be manually reset.

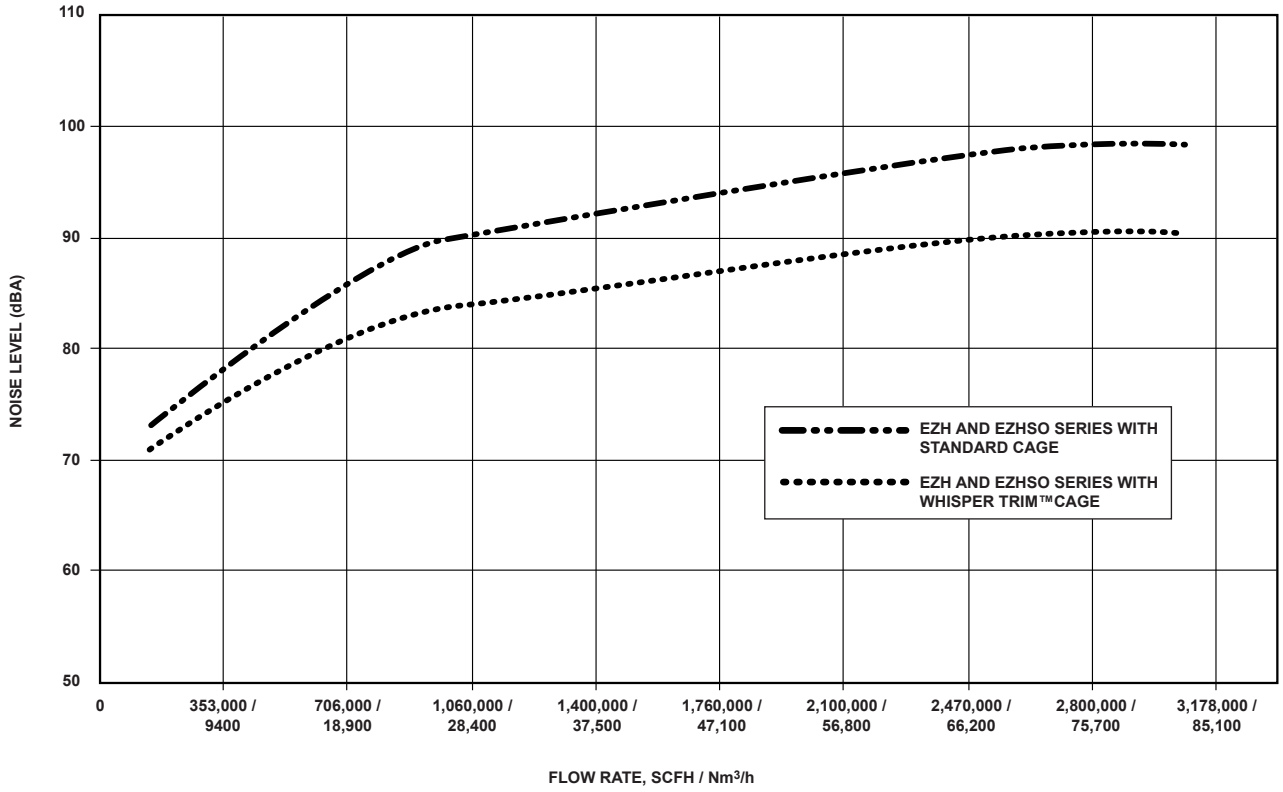
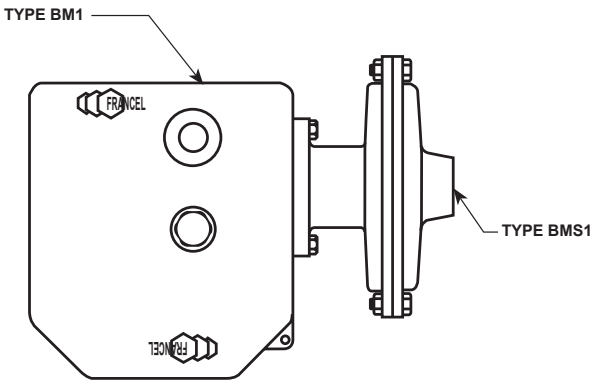
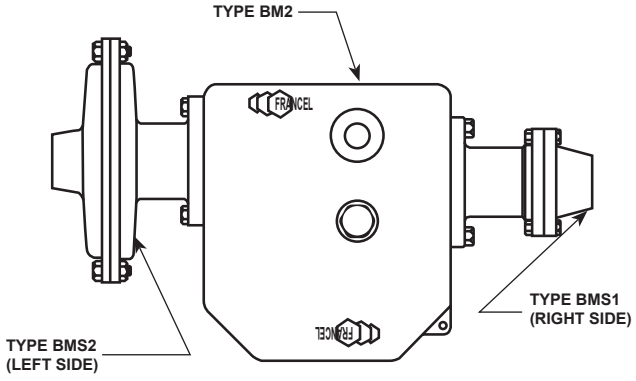


Figure 7. *Noise Comparison Diagram*



MECHANISM BOX (TYPE BM1) WITH 1 MANOMETRIC SENSING DEVICE (TYPE BMS1)

E0565



MECHANISM BOX (TYPE BM2) WITH 2 MANOMETRIC SENSING DEVICES (TYPES BMS1 AND BMS2)

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Figure 8. *Types of Slam-Shut Installation (Mounting on Horizontal Pipeline Only)*

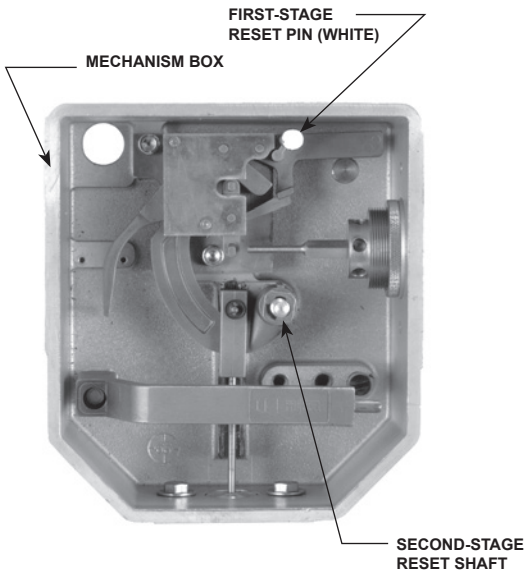


Figure 9. *Slam-Shut Device in Open Position*

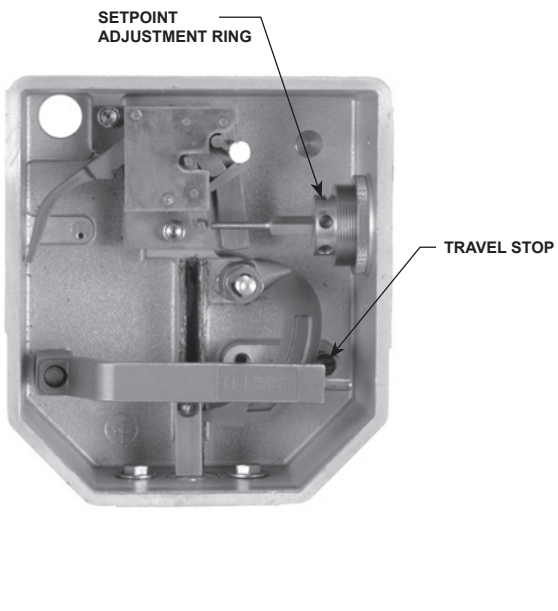


Figure 10. *Slam-Shut Device in Closed Position*

See Figures 9 and 10 for the difference between the device in open and closed positions. See Figure 11 for Type EZHOSX Installation Schematics. For more information about the Types EZHOSX and EZHSO-OSX, contact your local Sales Office.

Capacity Information

Note

EZH and EZHSO Series flow capacities are laboratory verified; therefore, they may be sized for 100% flow using published capacities as shown. It is not necessary to reduce published capacities.

Tables 17 through 20 show the natural gas regulating capacities of the EZH and EZHSO Series regulators at selected inlet pressures and outlet pressure settings. Flows are in thousands of SCFH at 60°F and 14.7 psia (or in thousands of Nm³/h at 0°C and 1.01325 bar) of 0.6 specific gravity natural gas.

To determine equivalent capacities for air, propane, butane or nitrogen, multiply the capacity by the following appropriate conversion factor: 0.775 for air, 0.628 for propane, 0.548 for butane or 0.789 for nitrogen. For gases of other specific gravities, multiply the given capacity by 0.775 and divide by the square root of the appropriate specific gravity. Then, if capacity is desired in Nm³/h at 0°C and 1.01325 bar, multiply SCFH by 0.0268.

To find approximate regulating capacities at pressure settings not given in Tables 17 through 20 or to find wide-open flow capacities for relief sizing at any inlet pressure, perform one of the following procedures. Then convert using the factors provided above, if necessary.

Critical Pressure Drops

For critical pressure drops (absolute outlet pressure equal to or less than one-half of absolute inlet pressure), use the following formula:

$$Q = (P_1)(C_g)(1.29)$$

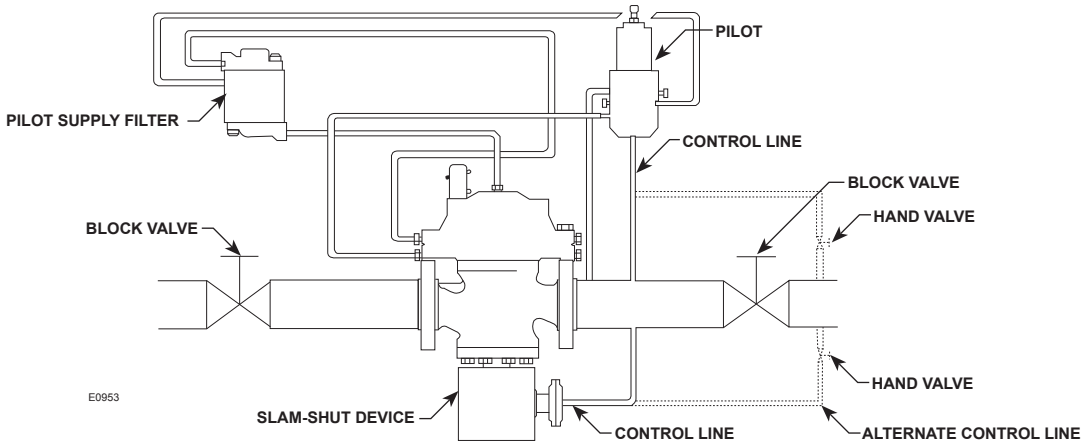
Non-Critical Pressure Drops

For pressure drops lower than critical (absolute outlet pressure greater than one-half of absolute inlet pressure).

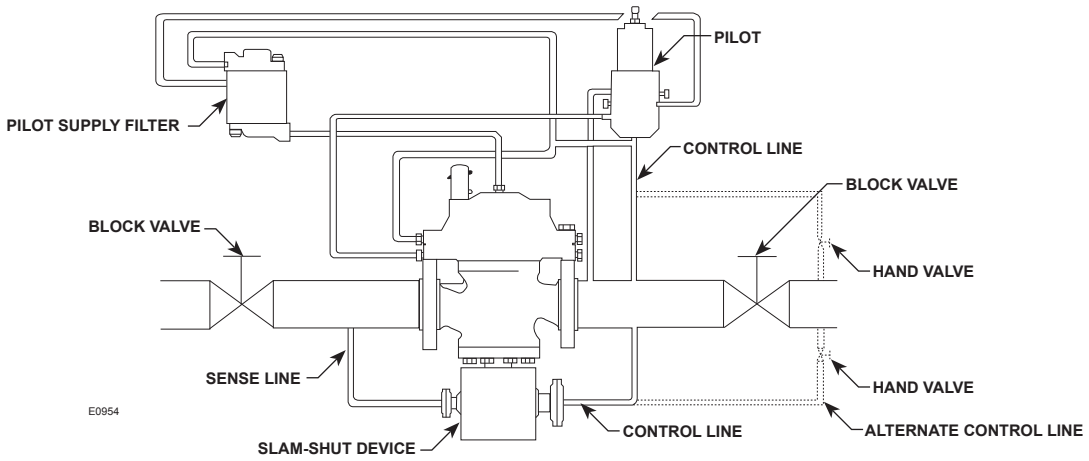
$$Q = \sqrt{\frac{520}{GT}}\ C_g P_1 SIN\left(\frac{3417}{C_1}\sqrt{\frac{\Delta P}{P_1}}\right) DEG$$

where,

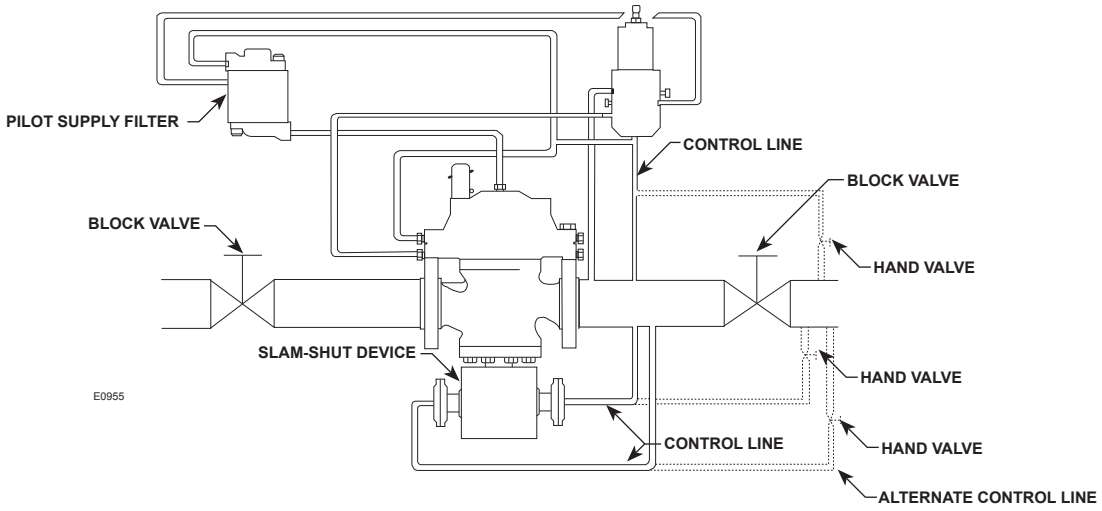
Q = gas flow rate, SCFH
P_1 = absolute inlet pressure, psia (P_1 gauge + 14.7)
C_g = regulating or wide-open gas sizing coefficient
G = gas specific gravity of the gas
T = absolute temperature of gas at inlet, °Rankine
C_1 = flow coefficient
ΔP = pressure drop across the regulator, psi



11A—Overpressure and Underpressure Shutoff Using One Manometric Device (This Application May Require Two Manometric Devices as Shown in Figure 11C)

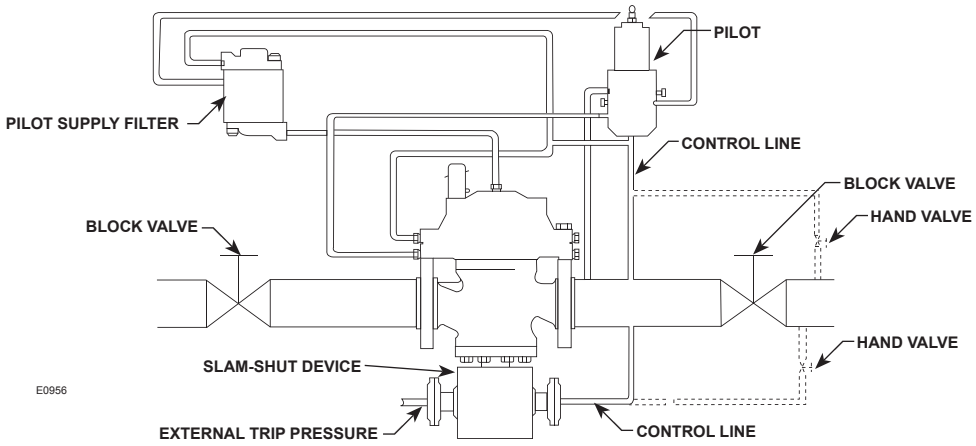


11B—Minimum and Maximum Upstream and Downstream Pressure

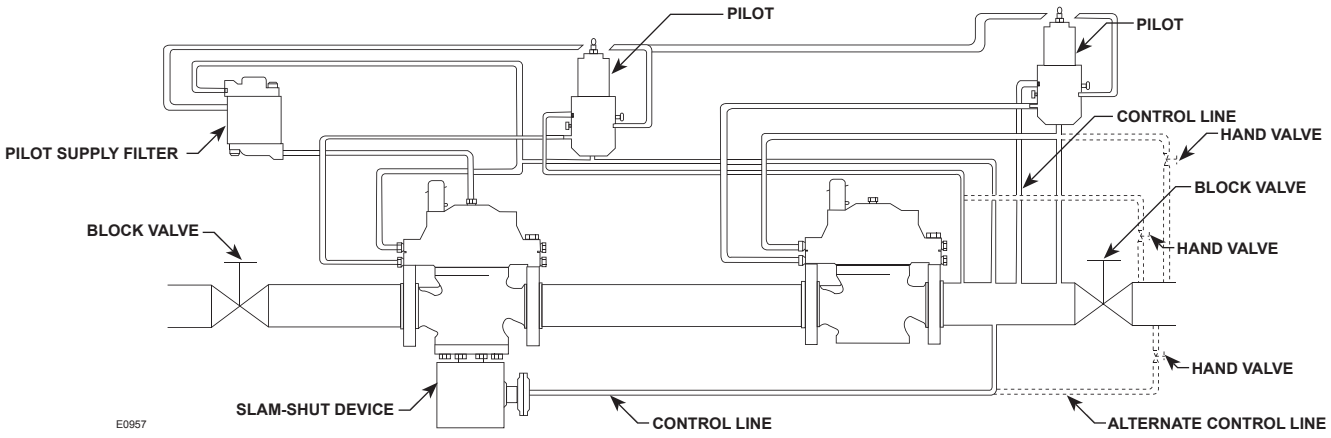


11C—Overpressure and Underpressure Shutoff Using Separate Manometric Devices

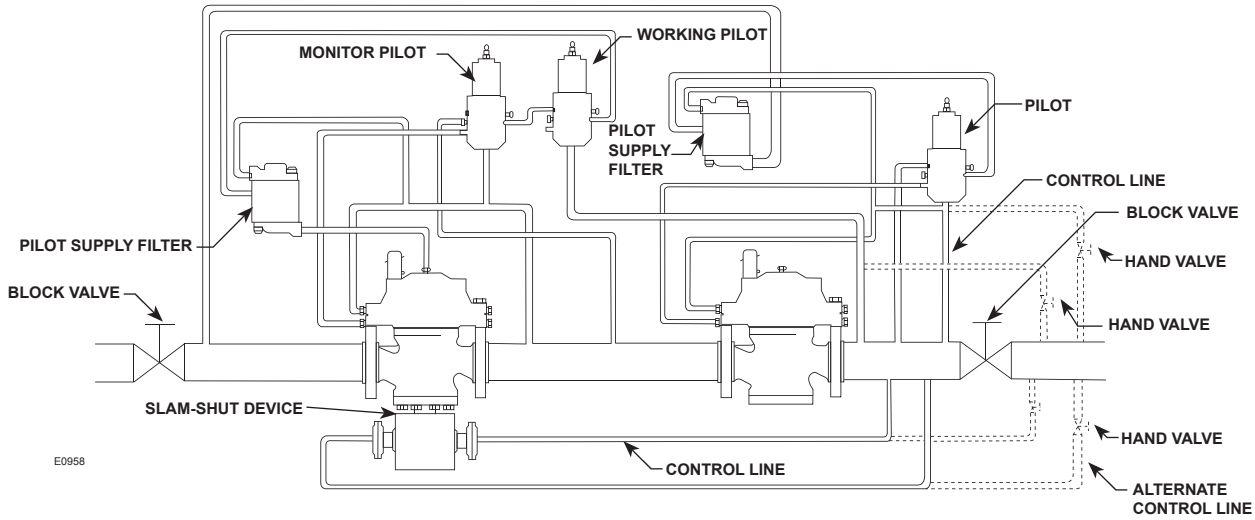
Figure 11. *Type EZHOSX Installation Schematics*



11D—External Signal



11E—Wide-Open Monitoring System with Slam-Shut Device for Overpressure and Underpressure Shutoff Using One Manometric Device (This Application May Require Two Manometric Devices as Shown in Figure 11F)



11F—Working Monitoring System with Slam-Shut Device for Overpressure and Underpressure Shutoff Using Two Manometric Devices (This Application May Only Require One Manometric Device as Shown in Figure 11E)

Figure 11. *Type EZHOSX Installation Schematics (continued)*

Table 5. *Manometric Device Specifications*[1]

SPRING RANGE		SPRING COLOR	SPRING PART NUMBER	MAXIMUM SENSING INLET PRESSURE		MANOMETRIC SENSING DEVICE TYPE	MANOMETRIC SENSING DEVICE STYLE	SETPOINT TOLERANCE [1]		MAXIMUM DIFFERENCE BETWEEN OVERPRESSURE AND UNDERPRESSURE[2]	
psig	bar			psig	bar			psig	bar	psid	bar d
4.02 to 14.1 inches w.c.	10 to 35 mbar	Purple	T14232T0012	75	5.2	162	Diaphragm	0.058	0.004	0.145	0.01
9.97 to 33.2 inches w.c.	25 to 83 mbar	Orange	T14233T0012					0.073	0.005	0.363	0.03
18 inches w.c. to 2.0 psig	45 mbar to 0.14 bar	Red	T14234T0012					0.145	0.01	0.725	0.05
1.0 to 3.5	0.07 to 0.24	Yellow	T14235T0012					0.203	0.014	0.870	0.06
1.7 to 5.6	0.12 to 0.39	Green	T14236T0012					0.261	0.02	2.18	0.15
2 to 11	0.14 to 0.80	Gray	T14238T0012					0.725	0.05	5.08	0.35
4 to 19	0.28 to 1.3	Brown	T14239T0012					1.16	0.08	8.70	0.60
7 to 33	0.48 to 2.3	Black	T14240T0012					2.47	0.17	16.0	1.1
15 to 75	1.0 to 5.2	Blue	T14237T0012	235	16.2	71		5.08	0.35	36.3	2.5
31 to 161	2.1 to 11.1	Brown	T14239T0012					10.2	0.70	79.8	5.5
59 to 235	4.1 to 16.2	Black	T14240T0012					23.2	1.6	145	10.0
235 to 323	16.2 to 22.3	Brown	T14239T0012	1470	101	27	Piston	43.5	3.0	Requires use of Types BMS1 and BMS2	
323 to 588	22.3 to 40.5	Black	T14240T0012					94.3	6.5		
588 to 808	40.5 to 55.7	Brown	T14239T0012	1470	101	17		102	7.0		
808 to 1470	55.7 to 101	Black	T14240T0012					174	12.0		
81 to 323	5.58 to 22.3	Brown	T14239T0012	514	35.4	236	Bellows	14.5	1.00	145	10.0
122 to 514	8.4 to 35.4	Black	T14240T0012					36.3	2.5	290	20.0
257 to 1058	17.7 to 72.9	Gray	T14238T0012	1058	72.9	315		72.5	5.0	479	33.0

1. Minimum suggested difference between slam-shut set pressure and normal operating pressure of the system.
2. Maximum difference between overpressure and underpressure when using one manometric device (Type BMS1) with tripping hook. For underpressure and overpressure points greater than this maximum number, use a second manometric device (Type BMS2) for underpressure protection.

Table 6. *Applications and Construction Guide (See Figure 8)*

APPLICATION	MECHANISM BOX REQUIRED		MANOMETRIC SENSING DEVICE REQUIRED	
	Type BM1	Type BM2	Type BMS1	Type BMS2
Overpressure Shutoff (OPSO)	Yes	No	Yes	No
Underpressure Shutoff (UPSO)				
Overpressure Shutoff (OPSO) and Underpressure Shutoff (UPSO)			Yes[1]	
Overpressure Shutoff (OPSO) and Underpressure Shutoff (UPSO)	No	Yes	Yes[2]	Yes
Overpressure Shutoff (OPSO), Overpressure Shutoff (OPSO) and Underpressure Shutoff (UPSO)			Yes[2]	Yes[1]

1. When using one manometric sensing device (Type BMS1) for both overpressure and underpressure shutoff, make sure that the difference between set pressures falls within the maximum range shown in Table 5.
2. When using two manometric sensing devices (Types BMS1 and BMS2), the Type BMS1 can only be used for high trip.

Table 7. *Types EZH and EZHSO Main Valve with Standard Cage Regulating Flow Coefficients*

MAIN VALVE BODY SIZE		TRIM, % OF CAPACITY	LINE SIZE EQUALS BODY SIZE			2:1 LINE SIZE TO BODY SIZE PIPING		
NPS	DN		C_g	C_v	C_1	C_g	C_v	C_1
1	25	100	564	16.3	34.6	544	15.3	35.5
		80	436	12.3	35.4	423	10.9	38.7
		50	284	8.4	33.7	249	6.3	39.7
		30	172	5.3	32.5	157	4.0	39.1
2	50	100	2278	58.5	38.9	2110	62.9	33.5
		80	1719	47.1	36.5	1609	50.5	31.9
		50	1213	31.0	39.1	1177	33.0	35.6
		30	707	16.9	41.7	718	18.8	38.2
3	80	100	4960	133	37.3	4396	143	30.8
		80	3950	109	36.2	3294	97.2	33.9
		50	2550	63.6	40.1	2069	54.7	37.80
		30	1530	36.7	41.7	1339	39.8	33.6
4	100	100	7250	227	31.9	7170	229	31.3
		80	5750	165	34.8	5630	165	34.1
		50	3510	95.9	36.6	3460	95.5	36.2
		30	2130	56.7	37.6	2080	56.2	37.0

Table 8. *Types EZH and EZHSO with Standard Cage Wide-Open Flow Coefficients*

MAIN VALVE BODY SIZE		TRIM, % OF CAPACITY	LINE SIZE EQUALS BODY SIZE			2:1 LINE SIZE TO BODY SIZE PIPING		
NPS	DN		C_g	C_v	C_1	C_g	C_v	C_1
1	25	100	587	16.95	34.63	566	15.94	35.51
		80	453	12.79	35.42	440	11.37	38.70
		50	295	8.76	33.68	259	6.52	39.72
		30	179	5.51	32.49	163	4.16	39.18
2	50	100	2369	60.89	38.91	2194	65.44	33.53
		80	1788	48.94	36.53	1673	52.52	31.85
		50	1261	32.26	39.09	1224	34.35	35.63
		30	735	17.62	41.71	747	19.57	38.17
3	80	100	5158	138	37.29	4571	149	30.77
		80	4108	113	36.24	3426	101	33.89
		50	2652	66.14	40.10	2152	56.94	37.79
		30	1591	38.17	41.68	1393	41.40	33.65
4	100	100	7470	234	31.6	7390	236	31.4
		80	5920	170	34.8	5800	170	34.2
		50	3620	98.8	36.7	3560	98.4	36.3
		30	2190	58.4	37.3	2140	57.9	37.3

Table 9. *Types EZH and EZHSO Main Valve with Standard Cage IEC Sizing Coefficients*

MAIN VALVE BODY SIZE		TRIM, % OF CAPACITY	LINE SIZE EQUALS BODY SIZE			2:1 LINE SIZE TO BODY SIZE PIPING		
NPS	DN		X_T	F_D	F_L	X_T	F_D	F_L
1	25	100	0.61	0.61	0.89	0.80	0.59	0.89
		80	0.72	0.67		0.95	0.63	
		50	0.69	0.80		0.99	0.69	
		30	0.66	0.81		0.97	0.71	
2	50	100	0.73	0.59		0.69	0.61	
		80	0.84	0.68		0.72	0.70	
		50	0.97	0.69		0.84	0.72	
		30	0.99	0.70		0.92	0.74	
3	80	100	0.88	0.58		0.60	0.60	
		80	0.83	0.71		0.73	0.67	
		50	0.99	0.73		0.90	0.68	
		30	0.99	0.72		0.72	0.75	
4	100	100	0.63	0.63		0.62	0.63	
		80	0.76	0.74		0.74	0.74	
		50	0.85	0.77		0.83	0.77	
		30	0.88	0.78		0.88	0.77	

Table 10. *Types EZHOSX and EZHSO-OSX Main Valve with Standard Cage Regulating Flow Coefficients*

MAIN VALVE BODY SIZE		TRIM, % OF CAPACITY	LINE SIZE EQUALS BODY SIZE			2:1 LINE SIZE TO BODY SIZE PIPING		
NPS	DN		C_g	C_v	C_1	C_g	C_v	C_1
1	25	100	560	16.3	34.4	550	17.6	31.3
		80	428	12.0	35.7	408	11.9	34.3
		50	282	8.3	33.9	245	7.3	33.6
		30	171	5.3	32.3	154	4.8	32.1
2	50	100	2259	53.5	42.3	2092	54.6	38.3
		80	1837	52.0	35.4	1762	50.0	35.3
		50	1297	32.9	39.4	1301	33.5	38.80
		30	746	17.9	41.7	746	18.3	40.80
3	80	100	4620	125	37.0	4359	142	30.8
		80	3920	106	37.0	3266	96.4	33.9
		50	2560	64.9	39.4	2052	54.3	37.80
		30	1540	36.8	41.8	1328	39.5	33.6
4	100	100	7120	209	34.1	6920	213	32.5
		80	5920	162	36.5	5760	163	35.3
		50	3550	93.3	38.0	3420	91.7	37.3
		30	2080	56.4	36.9	2060	55.6	37.1

Table 11. *Types EZHOSX and EZHSO-OSX with Standard Cage Wide-Open Flow Coefficients*

MAIN VALVE BODY SIZE		TRIM, % OF CAPACITY	LINE SIZE EQUALS BODY SIZE			2:1 LINE SIZE TO BODY SIZE PIPING		
NPS	DN		C_g	C_v	C_1	C_g	C_v	C_1
1	25	100	582	16.95	34.34	572	18.3	31.26
		80	445	12.48	35.66	424	12.38	34.25
		50	293	8.66	33.83	255	7.59	33.60
		30	178	5.51	32.30	160	4.99	32.06
2	50	100	2349	55.59	42.26	2176	56.75	38.34
		80	1911	54.04	35.36	1832	51.97	35.25
		50	1348	34.21	39.40	1352	34.87	38.77
		30	776	18.62	41.68	775	19.01	40.77
3	80	100	4805	130	36.96	4533	147	30.77
		80	4077	110	36.98	3397	100	33.89
		50	2662	67.50	39.44	2134	56.46	37.80
		30	1602	38.27	41.86	1381	41.05	33.64
4	100	100	7330	215	34.0	7130	219	32.4
		80	6100	167	36.5	5930	168	35.2
		50	3660	96.1	38.0	3520	94.5	37.4
		30	2140	58.1	36.9	2120	57.3	37.1

Table 12. *Types EZHOSX and EZHSO-OSX Main Valve with Standard Cage IEC Sizing Coefficients*

MAIN VALVE BODY SIZE		TRIM, % OF CAPACITY	LINE SIZE EQUALS BODY SIZE			2:1 LINE SIZE TO BODY SIZE PIPING		
NPS	DN		X_T	F_D	F_L	X_T	F_D	F_L
1	25	100	0.75	0.61	0.89	0.94	0.61	0.89
		80	0.81	0.66		0.68	0.66	
		50	0.73	0.79		0.26	0.79	
		30	0.65	0.81		0.87	0.81	
2	50	100	0.78	0.56		0.86	0.56	
		80	0.79	0.71		0.92	0.71	
		50	0.98	0.71		0.95	0.71	
		30	0.99	0.72		0.99	0.72	
3	80	100	0.87	0.56		0.59	0.56	
		80	0.87	0.70		0.72	0.70	
		50	0.98	0.74		0.90	0.74	
		30	0.99	0.72		0.71	0.72	
4	100	100	0.73	0.61		0.66	0.61	
		80	0.84	0.73		0.78	0.73	
		50	0.91	0.76		0.88	0.76	
		30	0.86	0.77		0.87	0.77	

Table 13. *Types EZH and EZHSO Main Valve with Whisper Trim™ Cage Regulating Flow Coefficients and Sizing Coefficients*

MAIN VALVE BODY SIZE		TRIM, % OF CAPACITY	LINE SIZE EQUALS BODY SIZE			2:1 LINE SIZE TO BODY SIZE PIPING			IEC SIZING COEFFICIENTS				
									1:1 Line to Body Size		2:1 Line to Body Size		F_L
NPS	DN		C_g	C_v	C_1	C_g	C_v	C_1	X_T	F_D	X_T	F_D	
2	50	100	1627	42.5	38.3	1539	45.9	33.5	0.82	0.03	0.71	0.03	0.89
		80	1466	37.6	39.0	1389	40.7	34.1	0.90	0.03	0.74	0.03	
		50	1114	28.0	39.8	1099	30.8	35.7	0.99	0.02	0.81	0.02	
		30	689	16.6	41.6	695	18.4	37.7	0.99	0.02	0.90	0.02	
3	80	100	3502	103	34.1	3313	108	30.8	0.59	0.02	0.60	0.02	
		80	2928	81.4	36.0	2774	82.6	33.6	0.72	0.02	0.71	0.02	
		50	1934	49.3	39.2	1908	51.4	37.1	0.95	0.01	0.87	0.01	
		30	1355	32.9	41.2	1366	35.0	39.0	0.99	0.01	0.96	0.01	
4	100	100	5570	179	31.1	5410	178	30.4	0.61	0.02	0.59	0.02	
		80	4860	148	32.8	4730	146	32.4	0.67	0.02	0.66	0.02	
		50	3340	93.4	35.8	3320	93.0	35.7	0.80	0.01	0.79	0.01	
		30	2080	54.3	38.3	2050	55.0	37.3	0.92	0.01	0.88	0.01	

Table 14. *Types EZH and EZHSO Main Valve with Whisper Trim Cage Wide-Open Flow and Sizing Coefficients*

MAIN VALVE BODY SIZE		TRIM, % OF CAPACITY	LINE SIZE EQUALS BODY SIZE			2:1 LINE SIZE TO BODY SIZE PIPING			IEC SIZING COEFFICIENTS				
									1:1 Line to Body Size		2:1 Line to Body Size		F_L
NPS	DN		C_g	C_v	C_1	C_g	C_v	C_1	X_T	F_D	X_T	F_D	
2	50	100	1692	44.2	38.2	1600	47.7	33.5	0.82	0.03	0.71	0.03	0.89
		80	1524	39.1	39.0	1444	42.3	34.1	0.90	0.03	0.74	0.03	
		50	1159	29.1	39.8	1143	31.9	35.8	0.99	0.02	0.81	0.02	
		30	718	17.2	41.7	722	19.2	37.6	0.99	0.02	0.90	0.02	
3	80	100	3642	107	34.1	3445	112	30.7	0.59	0.02	0.60	0.02	
		80	3045	84.7	35.9	2885	85.8	33.6	0.72	0.02	0.71	0.02	
		50	2011	51.3	39.2	1985	53.4	37.1	0.95	0.01	0.87	0.01	
		30	1409	34.2	41.2	1421	36.3	39.1	0.99	0.01	0.96	0.01	
4	100	100	5740	184	31.0	5570	183	30.5	0.61	0.02	0.59	0.02	
		80	5010	152	32.7	4870	150	32.4	0.67	0.02	0.66	0.02	
		50	3440	96.2	35.6	3420	95.8	35.3	0.80	0.01	0.79	0.01	
		30	2140	55.9	38.1	2110	56.7	37.3	0.92	0.01	0.88	0.01	

Table 15. *Types EZHOSX and EZHSO-OSX Main Valve with Whisper Trim Cage Regulating Flow and Sizing Coefficients*

MAIN VALVE BODY SIZE		TRIM, % OF CAPACITY	LINE SIZE EQUALS BODY SIZE			2:1 LINE SIZE TO BODY SIZE PIPING			IEC SIZING COEFFICIENTS				
									1:1 Line to Body Size		2:1 Line to Body Size		F_L
NPS	DN		C_g	C_v	C_1	C_g	C_v	C_1	X_T	F_D	X_T	F_D	
2	50	100	1494	39.9	37.4	1516	41.0	37.0	0.89	0.03	0.87	0.03	0.89
		80	1473	39.3	37.5	1482	39.5	37.5	0.89	0.03	0.89	0.03	
		50	1171	30.0	39.0	1169	29.6	39.5	0.96	0.02	0.99	0.02	
		30	721	17.0	42.4	718	18.2	39.4	0.99	0.02	0.98	0.02	
3	80	100	3472	102	34.1	3285	107	30.8	0.73	0.02	0.59	0.02	
		80	2903	80.7	36.0	2751	81.9	33.6	0.82	0.02	0.71	0.02	
		50	1918	48.9	39.2	1892	51.0	37.1	0.97	0.01	0.86	0.01	
		30	1344	32.6	41.2	1354	34.7	39.0	0.99	0.01	0.96	0.01	
4	100	100	5490	167	32.9	5320	168	31.7	0.68	0.02	0.63	0.02	
		80	4960	144	34.4	4810	141	34.1	0.74	0.02	0.73	0.02	
		50	3270	89.9	36.4	3190	87.7	36.4	0.83	0.01	0.86	0.01	
		30	2040	54.4	37.5	2020	53.7	37.6	0.89	0.01	0.90	0.01	

Table 16. *Types EZHOSX and EZHSO-OSX Main Valve with Whisper Trim™ Cage Wide-Open Flow and Sizing Coefficients*

MAIN VALVE BODY SIZE		TRIM, % OF CAPACITY	LINE SIZE EQUALS BODY SIZE			2:1 LINE SIZE TO BODY SIZE PIPING			IEC SIZING COEFFICIENTS				
									1:1 Line to Body Size		2:1 Line to Body Size		F_L
NPS	DN		C_g	C_v	C_1	C_g	C_v	C_1	X_T	F_D	X_T	F_D	
2	50	100	1554	41.5	37.4	1577	42.6	37.1	0.89	0.03	0.87	0.03	0.89
		80	1532	40.9	37.5	1542	41.1	37.5	0.89	0.03	0.89	0.03	
		50	1218	31.2	39.0	1216	30.8	39.4	0.96	0.02	0.99	0.02	
		30	750	17.7	42.3	747	19.0	39.3	0.99	0.02	0.98	0.02	
3	80	100	3611	106	34.1	3416	111	30.7	0.73	0.03	0.59	0.03	
		80	3020	84.0	35.9	2861	85.2	33.6	0.82	0.03	0.71	0.03	
		50	1994	50.9	39.1	1968	53.0	37.1	0.97	0.02	0.86	0.02	
		30	1397	33.9	41.2	1409	36.1	39.0	0.99	0.02	0.96	0.02	
4	100	100	5650	172	32.9	5480	173	31.6	0.68	0.02	0.63	0.02	
		80	5110	148	34.2	4950	145	34.1	0.74	0.02	0.73	0.02	
		50	3370	92.6	36.3	3290	89.7	36.8	0.83	0.01	0.86	0.01	
		30	2100	56.0	37.6	2080	55.3	37.6	0.89	0.01	0.90	0.01	

Table 17. *Capacities for Types EZH and EZHSO with PRX Series Pilot and Type SA/2 Pilot Supply Filter Regulator*

INLET PRESSURE		OUTLET PRESSURE		CAPACITIES IN THOUSANDS OF SCFH / Nm^3/h OF 0.6 SPECIFIC GRAVITY NATURAL GAS USING 1:1 LINE SIZE TO BODY SIZE PIPING							
				NPS 1 / DN 25		NPS 2 / DN 50		NPS 3 / DN 80		NPS 4 / DN 100	
psig	bar	psig	bar	SCFH	Nm^3/h	SCFH	Nm^3/h	SCFH	Nm^3/h	SCFH	Nm^3/h
30	2.1	15	1.0	27	0.7	112	3.0	229	6.1	365	9.8
40	2.8	15	1.0	37	0.9	149	4.0	309	8.2	483	13.0
		25	1.7	31	0.8	128	3.4	260	6.9	420	11.3
50	3.4	15	1.0	45	1.2	183	4.9	382	10.2	588	15.8
		25	1.7	41	1.1	169	4.5	347	9.3	550	14.8
		35	2.4	35	0.9	142	3.8	288	7.7	469	12.6
60	4.1	Up to 16	Up to 1.1	53	1.4	214	5.7	450	12.0	687	18.4
		20	1.3	52	1.3	211	5.6	440	11.8	678	18.2
		30	2.0	48	1.3	197	5.3	406	10.8	641	17.2
		45	3.1	38	1.0	156	4.2	314	8.4	513	13.8
75	5.2	Up to 22	Up to 1.5	63	1.7	257	6.9	541	14.5	825	22.1
		30	2.0	61	1.6	250	6.7	520	13.9	806	21.6
		40	2.7	58	1.5	235	6.3	483	12.9	764	20.5
		60	4.1	42	1.1	174	4.6	349	9.3	574	15.4
100	6.9	Up to 32	Up to 2.2	81	2.2	329	8.8	692	18.5	1055	28.3
		40	2.7	79	2.1	322	8.6	672	18.0	1038	27.9
		50	3.4	76	2.0	309	8.3	639	17.1	1003	26.9
		85	5.8	49	1.3	200	5.3	401	10.7	663	17.8
125	8.6	Up to 43	Up to 2.9	99	2.7	400	10.7	841	22.6	1283	34.4
		50	3.4	97	2.6	394	10.6	824	22.1	1269	34.1
		75	5.2	88	2.4	356	9.5	730	19.6	1163	31.2
		110	7.5	55	1.4	224	6.0	447	12.0	742	19.9
150	10.3	Up to 52	Up to 3.5	117	3.1	473	12.7	994	26.6	1515	40.7
		75	5.2	110	2.9	449	12.0	929	24.9	1453	39.0
		95	6.5	101	2.7	411	11.0	841	22.5	1345	36.1
		130	8.9	68	1.8	278	7.5	557	14.9	923	24.8
200	13.8	Up to 73	Up to 5.0	152	4.1	616	16.5	1295	34.7	1974	53.0
		100	6.9	145	3.9	588	15.8	1219	32.7	1903	51.1
		125	8.6	133	3.6	544	14.6	1113	29.8	1775	47.7
		185	12.8	69	1.8	283	7.6	563	15.1	940	25.2
300	20.7	Up to 115	Up to 7.9	222	6.0	902	24.2	1895	50.8	2892	77.6
		150	10.3	213	5.7	866	23.2	1798	48.2	2802	75.2
		200	13.8	190	5.1	773	20.7	1579	42.3	2532	67.9
		275	19.0	107	2.9	440	11.8	877	23.5	1462	39.2
400	27.6	Up to 155	Up to 10.7	293	7.9	1189	31.9	2500	67.0	3813	102
		200	13.8	282	7.6	1145	30.7	2377	63.7	3701	99.3
		250	17.2	261	7.0	1061	28.4	2176	58.3	3463	92.9
		300	20.7	227	6.1	926	24.8	1876	50.3	3047	81.8
		350	24.1	171	4.6	698	18.7	1399	37.5	2316	62.2

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Table 17. *Capacities for Types EZH and EZHSO with PRX Series Pilot and Type SA/2 Pilot Supply Filter Regulator (continued)*

INLET PRESSURE		OUTLET PRESSURE		CAPACITIES IN THOUSANDS OF SCFH / Nm^3/h OF 0.6 SPECIFIC GRAVITY NATURAL GAS USING 1:1 LINE SIZE TO BODY SIZE PIPING							
				NPS 1 / DN 25		NPS 2 / DN 50		NPS 3 / DN 80		NPS 4 / DN 100	
psig	bar	psig	bar	SCFH	Nm^3/h	SCFH	Nm^3/h	SCFH	Nm^3/h	SCFH	Nm^3/h
500	34.5	Up to 196	Up to 13.5	364	9.8	1476	39.6	3103	83.2	4732	127
		225	15.5	357	9.6	1451	38.9	3031	81.2	4673	125
		300	20.7	330	8.8	1345	36.0	2765	74.1	4379	117
		400	27.6	259	7.0	1058	28.4	2134	57.2	3492	93.6
600	41.4	Up to 237	Up to 16.3	435	11.7	1763	47.2	3705	99.3	5651	151
		300	20.7	419	11.2	1701	45.6	3535	94.7	5498	147
		375	25.9	388	10.4	1579	42.3	3238	86.8	5149	138
		450	31.0	338	9.1	1378	37.0	2793	74.9	4535	122
700	48.3	Up to 278	Up to 19.2	505	13.5	2049	55.0	4308	115	6570	176
		350	24.1	487	13.1	1979	53.0	4114	110	6397	171
		400	27.6	469	12.6	1907	51.1	3934	105	6196	166
		600	41.4	314	8.4	1283	34.4	2575	69.0	4251	114
800	55.2	Up to 350	Up to 24.1	569	15.2	2311	62.0	4836	130	7431	199
		450	31.0	538	14.4	2187	58.6	4517	121	7100	190
		609	42.0	441	11.8	1800	48.2	3644	97.7	5926	159
900	62.1	Up to 350	Up to 24.1	649	17.4	2630	70.5	5535	148	8424	226
		500	34.5	606	16.2	2466	66.1	5098	137	8003	214
		609	42.0	552	14.8	2249	60.3	4591	123	7361	197
1000	69.0	Up to 350	Up to 24.1	726	19.5	2942	79.0	6219	167	9391	252
		500	34.5	693	18.6	2814	75.4	5851	157	9092	244
		609	42.0	650	17.4	2645	71.0	5437	146	8615	231
1100	75.8	Up to 350	Up to 24.1	802	21.5	3248	87.0	6894	185	10,342	277
		500	34.5	775	20.8	3147	84.3	6576	176	10,131	272
		609	42.0	740	19.8	3011	80.7	6226	167	9769	262
1200	82.7	Up to 350	Up to 24.1	877	24.0	3551	95.2	7562	203	11,281	302
		500	34.5	855	23.0	3470	93.0	7282	195	11,137	298
		609	42.0	827	22.2	3359	90.0	6980	187	10,859	291
1300	89.6	Up to 350	Up to 24.1	952	26.0	3852	103	8224	220	12,211	327
		500	34.5	934	25.0	3786	101	7976	214	12,121	325
		609	42.0	910	24.4	3694	99.0	7709	207	11,906	319
1400	96.5	Up to 350	Up to 24.1	1026	27.5	4151	111	8883	238	13,140	352
		500	34.5	1011	27.1	4098	110	8660	232	13,088	351
		609	42.0	991	26.6	4021	108	8422	226	12,924	346
1480	102	Up to 350	Up to 24.1	1085	29.1	4388	118	9408	252	13,883	372
		500	34.5	1072	28.7	4344	116	9201	247	13,852	371
		609	42.0	1054	28.2	4277	115	8983	241	13,722	368

Table 18. *Capacities for Types EZH and EZHSO with PRX-AP Series Pilot and Type SA/2 Pilot Supply Filter Regulator*

INLET PRESSURE		OUTLET PRESSURE		CAPACITIES IN THOUSANDS OF SCFH / Nm^3/h OF 0.6 SPECIFIC GRAVITY NATURAL GAS USING 1:1 LINE SIZE TO BODY SIZE PIPING							
				NPS 1 / DN 25		NPS 2 / DN 50		NPS 3 / DN 80		NPS 4 / DN 100	
psig	bar	psig	bar	SCFH	Nm^3/h	SCFH	Nm^3/h	SCFH	Nm^3/h	SCFH	Nm^3/h
500	34.5	250 300 400	17.2 20.7 27.6	350 330 259	9.4 8.8 7.0	1423 1345 1058	38.1 36.0 28.4	2956 2765 2134	79.2 74.1 57.2	4600 4379 3492	123 117 93.6
600	41.4	250 350 500	17.2 24.1 34.5	432 400 288	11.6 10.7 7.7	1752 1626 1176	47.0 43.6 31.5	3675 3351 2364	98.5 89.8 63.4	5628 5289 3889	151 142 104
700	48.3	250 300 400 550	17.2 20.7 27.6 37.9	510 501 469 371	13.7 13.4 12.6 10.0	2068 2032 1907 1514	55.4 54.5 51.1 40.6	4366 4256 3934 3058	117 114 105 82.0	6607 6530 6196 4992	177 175 166 134
800	55.2	Up to 300 400 500 650	Up to 20.7 27.6 34.5 44.8	579 556 515 401	15.5 14.9 13.8 10.7	2349 2257 2096 1639	63.0 60.5 56.2 44.0	4951 4693 4301 3302	133 126 115 88.5	7517 7295 6835 5414	202 196 184 145
900	62.1	Up to 350 400 600 800	Up to 24.1 27.6 41.4 55.2	649 638 557 361	17.4 17.1 15.0 9.7	2630 2589 2271 1475	70.5 69.4 60.9 39.5	5535 5416 4641 2952	148 145 124 79.1	8424 8331 7428 4897	226 224 199 131
1000	69.0	Up to 400 500 600 800	Up to 27.6 34.5 41.4 55.2	718 693 654 514	19.2 18.6 17.5 13.8	2910 2814 2662 2097	78.0 75.4 71.3 56.2	6118 5851 5477 4231	164 157 147 113	9330 9092 8665 6922	250 244 232 186
1100	75.8	Up to 450 600 800 1000	Up to 31.0 41.4 55.2 68.9	786 744 635 402	21.1 20.0 17.0 10.8	3190 3025 2589 1646	85.5 81.1 69.4 44.1	6700 6259 5261 3287	180 168 141 88.1	10,234 9807 8504 5469	275 263 228 147
1200	82.7	Up to 500 600 800 1100	Up to 34.5 41.4 55.2 75.8	855 829 741 422	23.0 22.2 19.9 11.3	3470 3370 3020 1724	93.0 90.3 80.9 46.2	7282 7008 6172 3442	195 188 165 92.2	11,137 10,888 9876 5734	299 292 265 154
1300	89.6	Up to 500 600 800 1160	Up to 34.5 41.4 55.2 80.0	934 912 839 513	25.0 24.4 22.5 13.7	3786 3704 3414 2096	101 99.3 91.5 56.2	7976 7735 7014 4193	214 207 188 112	12,121 11,930 11,125 6958	325 320 298 187
1400	96.5	Up to 500 600 800 1160	Up to 34.5 41.4 55.2 80.0	1011 993 930 674	27.1 26.6 25.0 18.1	4098 4029 3785 2753	110 108 101 73.8	8660 8444 7812 5540	232 226 209 148	13,088 12,942 12,294 9102	351 347 330 244
1480	102	Up to 500 600 800 1160	Up to 34.5 41.4 55.2 80.0	1072 1056 1001 782	28.7 28.3 26.8 21.0	4344 4284 4070 3191	116 115 109 85.5	9201 9004 8428 6447	247 241 226 173	13,852 13,737 13,188 10,518	372 369 354 282

Table 19. *Capacities for Types EZHOSX and EZHSO-OSX with PRX Series Pilot and Type SA/2 Pilot Supply Filter Regulator*

INLET PRESSURE		OUTLET PRESSURE		CAPACITIES IN THOUSANDS OF SCFH / Nm^3/h OF 0.6 SPECIFIC GRAVITY NATURAL GAS USING 1:1 LINE SIZE TO BODY SIZE PIPING							
				NPS 1 / DN 25		NPS 2 / DN 50		NPS 3 / DN 80		NPS 4 / DN 100	
psig	bar	psig	bar	SCFH	Nm^3/h	SCFH	Nm^3/h	SCFH	Nm^3/h	SCFH	Nm^3/h
30	2.1	15	1.0	27	0.7	108	2.9	214	5.7	351	9.4
40	2.8	15 25	1.0 1.7	36 31	0.9 0.8	145 124	3.9 3.3	289 244	7.7 6.5	467 401	12.5 10.8
50	3.5	15 25 35	1.0 1.7 2.4	45 41 35	1.2 1.1 0.9	179 164 138	4.8 4.4 3.6	357 325 270	9.5 8.7 7.2	572 529 447	15.4 14.2 12.0
60	4.1	Up to 16 20 30 45	Up to 1.1 1.3 2.0 3.1	52 52 48 38	1.4 1.4 1.2 1.0	210 206 192 150	5.6 5.5 5.1 4.0	421 412 380 294	11.2 11.0 10.1 7.9	669 659 617 489	18.0 17.7 16.6 13.1
75	5.8	Up to 22 30 40 60	Up to 1.5 2.0 2.7 4.1	63 61 57 42	1.7 1.6 1.5 1.1	252 244 228 167	6.7 6.5 6.1 4.4	505 486 452 327	13.5 13.0 12.1 8.7	804 781 735 545	21.6 21.0 19.7 14.6
100	6.9	Up to 32 40 50 85	Up to 2.2 2.7 3.4 5.8	81 79 75 49	2.2 2.1 2.0 1.3	323 315 301 193	8.6 8.4 8.0 5.1	647 628 598 376	17.3 16.8 16.0 10.1	1029 1008 968 629	27.6 27.0 26.0 16.9
125	8.6	Up to 43 50 75 110	Up to 2.9 3.4 5.1 7.5	98 96 87 54	2.6 2.5 2.3 1.4	392 386 346 215	10.5 10.3 9.2 5.7	786 770 684 420	21.1 20.6 18.3 11.2	1251 1233 1117 703	33.5 33.0 30.0 18.8
150	10.3	Up to 52 75 95 130	Up to 3.5 5.1 6.5 8.9	116 110 100 68	3.1 2.9 2.7 1.8	464 437 399 268	12.4 11.7 10.7 7.2	929 869 788 523	24.9 23.3 21.1 14.0	1478 1405 1290 875	39.6 37.7 34.6 23.5
200	13.8	Up to 73 100 125 185	Up to 5.0 6.9 8.6 12.8	151 144 133 69	4.0 3.9 3.6 1.8	604 573 528 272	16.2 15.4 14.2 7.3	1210 1140 1043 529	32.4 30.6 28.0 14.1	1925 1841 1705 889	51.6 49.3 45.7 23.8
300	20.7	Up to 115 150 200 275	Up to 7.9 10.3 13.8 19.0	221 212 188 107	5.9 5.7 5.0 2.9	884 845 750 422	23.7 22.6 20.1 11.3	1771 1682 1479 823	47.5 45.1 39.6 22.1	2819 2712 2426 1383	75.7 72.8 65.1 37.1
400	27.6	Up to 155 200 250 300 350	Up to 10.7 13.8 17.2 20.7 24.1	291 280 259 225 170	7.8 7.5 6.9 6.0 4.6	1166 1117 1031 895 672	31.2 30.0 27.6 24.0 18.0	2337 2224 2038 1758 1312	62.6 59.6 54.6 47.1 35.2	3718 3583 3327 2907 2196	99.8 96.2 89.3 78.0 58.9
500	34.5	Up to 196 225 300 400	Up to 13.5 15.5 20.7 27.6	361 355 328 257	9.7 9.5 8.8 6.9	1447 1419 1308 1021	38.8 38.0 35.1 27.4	2900 2834 2589 2001	77.7 76.0 69.4 53.6	4614 4539 4215 3323	124 122 113 89.2
600	41.4	Up to 237 300 375 450	Up to 16.3 20.7 25.9 31.0	431 416 385 335	11.6 11.1 10.3 9.0	1729 1661 1534 1333	46.3 44.5 41.1 35.7	3463 3307 3033 2618	92.8 88.6 81.3 70.2	5510 5325 4949 4328	148 143 133 116
700	48.3	Up to 278 350 400 600	Up to 19.2 24.1 27.6 41.4	502 484 465 312	13.5 13.0 12.5 8.4	2010 1933 1857 1236	53.9 51.8 49.8 33.1	4027 3849 3683 2415	108 103 98.7 64.7	6406 6196 5975 4034	172 166 160 108
800	55.2	Up to 350 450 609	Up to 24.1 31.0 42.0	565 534 438	15.1 14.3 11.7	2262 2130 1740	60.6 57.1 46.6	4522 4227 3416	121 113 91.5	7227 6851 5652	194 184 151
900	62.1	Up to 350 500 609	Up to 24.1 34.5 42.0	644 602 548	17.3 16.1 14.7	2580 2403 2181	69.1 64.4 58.5	5173 4771 4301	139 128 115	8220 7726 7055	220 207 189
1000	69.0	Up to 350 500 609	Up to 24.1 34.5 42.0	721 688 645	19.3 18.4 17.3	2891 2748 2571	77.5 73.6 69.0	5811 5473 5091	156 146 136	9189 8808 8290	246 236 222

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Table 19. *Capacities for Types EZHOSX and EZHSO-OSX with PRX Series Pilot and Type SA/2 Pilot Supply Filter Regulator (continued)*

INLET PRESSURE		OUTLET PRESSURE		CAPACITIES IN THOUSANDS OF SCFH / Nm³/h OF 0.6 SPECIFIC GRAVITY NATURAL GAS USING 1:1 LINE SIZE TO BODY SIZE PIPING							
				NPS 1 / DN 25		NPS 2 / DN 50		NPS 3 / DN 80		NPS 4 / DN 100	
psig	bar	psig	bar	SCFH	Nm³/h	SCFH	Nm³/h	SCFH	Nm³/h	SCFH	Nm³/h
1100	75.8	Up to 350	Up to 24.1	796	21.3	3197	85.7	6439	173	10,142	272
		500	34.5	770	20.6	3079	82.5	6149	165	9844	264
		609	42.0	735	19.7	2934	78.6	5827	156	9432	253
1200	82.7	Up to 350	Up to 24.1	871	23.3	3500	93.8	7061	189	11,084	297
		500	34.5	849	22.8	3401	91.1	6807	182	10,894	292
		609	42.0	821	22.0	3279	87.9	6530	175	10,515	282
1300	89.6	Up to 350	Up to 24.1	945	25.3	3800	102	7678	206	12,018	322
		500	34.5	927	24.8	3716	99.6	7454	200	11,833	317
		609	42.0	903	24.2	3613	96.8	7210	193	11,559	310
1400	96.5	Up to 350	Up to 24.1	1019	27.3	4099	110	8292	222	12,946	347
		500	34.5	1004	26.9	4027	108	8091	217	12,802	343
		609	42.0	984	26.4	3938	105	7874	211	12,575	337
1480	102	Up to 350	Up to 24.1	1078	28.9	4337	116	8781	235	13,685	367
		500	34.5	1065	28.5	4273	115	8596	230	13,568	364
		609	42.0	1047	28.1	4193	112	8397	225	13,372	358

Table 20. *Capacities for Types EZHOSX and EZHSO-OSX with PRX-AP Series Pilot and Type SA/2 Pilot Supply Filter Regulator*

INLET PRESSURE		OUTLET PRESSURE		CAPACITIES IN THOUSANDS OF SCFH / Nm³/h OF 0.6 SPECIFIC GRAVITY NATURAL GAS USING 1:1 LINE SIZE TO BODY SIZE PIPING							
				NPS 1 / DN 25		NPS 2 / DN 50		NPS 3 / DN 80		NPS 4 / DN 100	
psig	bar	psig	bar	SCFH	Nm³/h	SCFH	Nm³/h	SCFH	Nm³/h	SCFH	Nm³/h
500	34.5	250	17.2	348	9.3	1389	37.2	2766	74.1	4454	119
		300	20.7	328	8.8	1308	35.1	2589	69.4	4215	113
		400	27.6	257	6.9	1021	27.4	2001	53.6	3323	89.1
600	41.4	250	17.2	429	11.5	1717	46.0	3436	92.1	5480	147
		350	24.1	397	10.6	1583	42.4	3137	84.1	5097	137
		500	34.5	286	7.7	1133	30.4	2217	59.4	3695	99.0
700	48.3	250	17.2	507	13.6	2031	54.4	4079	109	6460	173
		300	20.7	497	13.3	1990	53.4	3979	107	6354	170
		400	27.6	465	12.5	1857	49.8	3683	98.7	5975	160
		550	37.4	368	9.9	1462	39.2	2867	77.0	4755	127
800	55.2	Up to 300	Up to 20.7	575	15.4	2306	61.8	4627	124	7341	197
		400	27.6	552	14.8	2204	59.1	4390	118	7066	189
		500	34.5	511	13.7	2036	54.6	4027	108	6571	176
		650	44.8	399	10.7	1581	42.4	3097	83.0	5149	138
900	62.1	Up to 350	Up to 24.1	644	17.3	2580	69.1	5173	139	8220	220
		400	27.6	633	17.0	2534	68.0	5064	136	8099	217
		600	41.4	553	14.8	2203	59.0	4347	117	7123	191
		800	55.2	358	9.6	1420	38.1	2770	74.2	4639	124
1000	69.0	Up to 400	Up to 27.6	712	19.1	2854	76.5	5719	153	9097	244
		500	34.5	688	18.4	2748	73.6	5473	147	8808	236
		600	41.4	649	17.4	2589	69.4	5128	137	8343	224
		800	55.2	510	13.7	2025	54.3	3968	106	6589	177
1100	75.8	Up to 450	Up to 31.0	781	20.9	3127	83.8	6263	168	9974	267
		600	41.4	739	19.8	2948	79.0	5858	157	9474	254
		800	55.2	630	16.9	2506	67.2	4930	132	8128	218
		1000	69.0	400	10.7	1582	42.4	3084	82.7	5176	139
1200	82.7	Up to 500	Up to 34.5	849	22.8	3401	91.1	6807	182	10,849	291
		600	41.4	824	22.1	3291	88.2	6556	176	10,549	283
		800	55.2	736	19.7	2929	78.5	5781	155	9472	254
		1100	75.8	419	11.2	1658	44.4	3230	86.6	5424	145
1300	89.6	Up to 500	Up to 34.5	927	24.8	3716	99.6	7454	200	11,833	317
		600	41.4	906	24.3	3623	97.1	7233	194	11,587	311
		800	55.2	833	22.3	3319	88.9	6568	176	10,702	287
		1160	80.0	509	13.6	2017	54.1	3934	105	6591	177
1400	96.5	Up to 500	Up to 34.5	1004	26.9	4027	108	8091	217	12,802	343
		600	41.4	986	26.4	3946	106	7895	212	12,598	338
		800	55.2	924	24.8	3686	98.8	7312	196	11,858	318
		1160	80.0	669	18.0	2655	71.2	5195	139	8651	232
1480	102	Up to 500	Up to 34.5	1065	28.5	4273	115	8596	230	13,568	364
		600	41.4	1049	28.1	4201	113	8416	226	13,392	359
		800	55.2	994	26.6	3968	106	7887	211	12,746	342
		1160	80.0	776	20.8	3082	82.6	6045	162	10,021	269

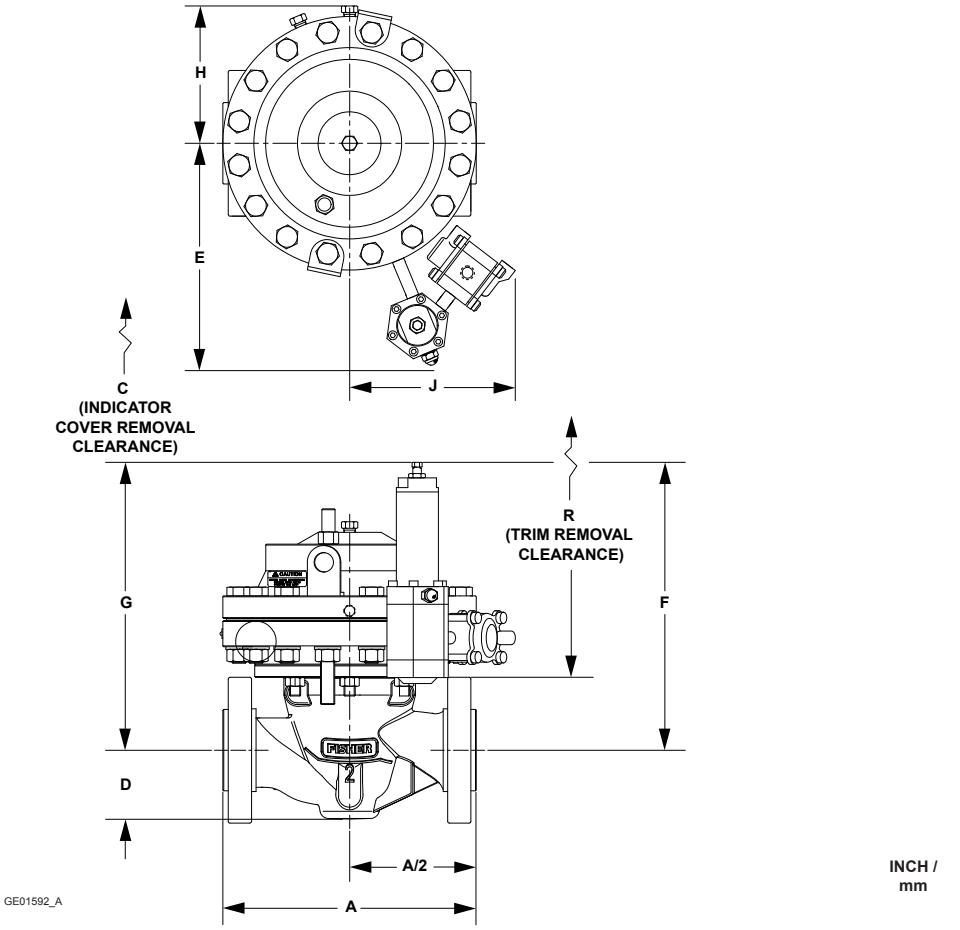

Figure 12. *Types EZH and EZHSO Dimensions*

Table 21. *Dimensions*

BODY SIZE, NPS / DN	DIMENSIONS, Inch / mm													
	A				C	D (Maximum)	E	F		G	H	J	R	
	NPT or SWE	CL150 RF	CL300 RF	CL600 RF or BWE				Type PRX	Type PRX-AP				Type PRX	Type PRX-AP
1 / 25	8.25 / 210	7.25 / 184	7.75 / 197	8.25 / 210	1.50 / 38.1	2.10 / 53	7.50 / 190	11.30 / 287	13.05 / 331	11.10 / 282	5.10 / 130	8.25 / 210	16.80 / 427	18.55 / 471
2 / 50	11.3 / 287	10.0 / 254	10.50 / 267	11.30 / 287	1.50 / 38.1	3.10 / 79	11.25 / 286	13.00 / 330	14.75 / 375	11.30 / 287	6.50 / 165	7.75 / 197	18.50 / 470	20.30 / 516
3 / 80	13.25 / 337	11.75 / 298	12.50 / 317	13.25 / 337	2.00 / 50.8	3.81 / 97	13.75 / 349	13.61 / 346	15.36 / 390	16.75 / 425	8.00 / 203	13.25 / 337	18.60 / 472	20.86 / 530
4 / 100	- - - -	13.9 / 353	14.5 / 368	15.5 / 394	2.00 / 50.8	5.06 / 129	15.5 / 394	14.1 / 358	15.85 / 403	16.8 / 427	10.03 / 255	5.5 / 140	26.1 / 663	26.1 / 663

Table 22. *Approximate Weights*

BODY SIZE		APPROXIMATE SHIPPING WEIGHTS															
		NPT		SWE		CL150 RF		CL300 RF		CL600 RF		SCH 40		SCH 80		For Type OSX	
NPS	DN	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg	lbs	kg
1	25	77	35	77	35	79	36	83	38	87	39	77	35	77	35	Add 17	Add 8
2	50	136	62	136	62	139	63	143	65	150	68	136	62	136	62	Add 30	Add 14
3	80	390	177	390	177	394	179	397	180	410	186	390	177	390	177	Add 41	Add 19
4	100	- - - -	- - - -	433	197	451	205	481	219	514	234	433	197	433	197	Add 57	Add 26

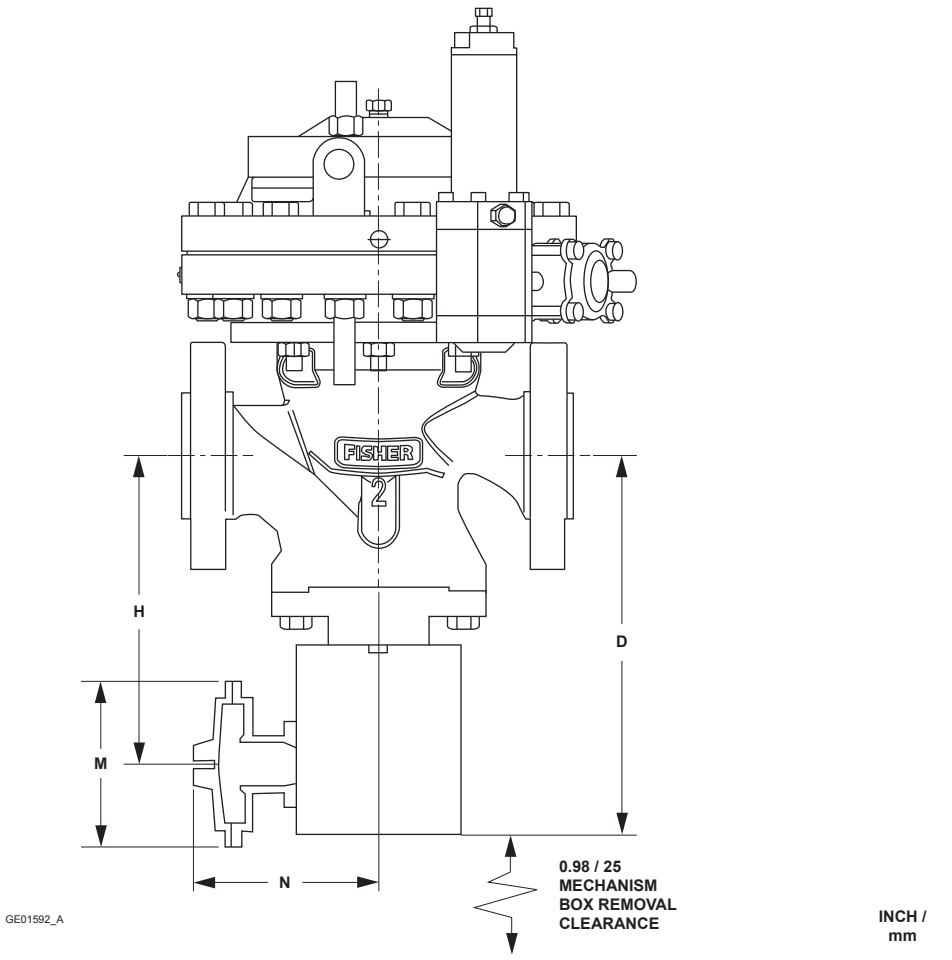

Figure 13. *Types EZHOSX and EZHSO-OSX Dimensions*

Table 23. *Dimensions*

BODY SIZE		DIMENSIONS WITH SLAM SHUT													
		D		H		M(1)				N					
						Diaphragm		Piston		Diaphragm		Piston		Bellows	
NPS	DN	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
1	25	12.0	305	9.8	249	6.4	163	2.8	71	6.9	175	8.0	203	8.8	224
2	50	13.0	330	10.4	264	6.38	162			6.89	175	8.03	204	8.78	223
3	80	14.4	366	11.8	300										
4	100	16.8	427	13.6	346										
1. Type 71 BMS with a diaphragm has an M dimension of 2.80 inches / 71 mm.															

Ordering Information

Use the Specifications section on page 3 and carefully review the description to the right of each specification. Use this information to complete the Ordering Guide on the following page. Specify the desired selection wherever there is a choice to be made. Then send the Ordering Guide to your local Sales Office.

Ordering Guide

Type and Body Material (Select One)

WCC Steel

☐ Type EZH (Spring-to-Close Version)***
☐ Type EZHSO (Spring-to-Open Version)***

LCC Steel

☐ Type EZHOSX (Spring-to-Close Version with Slam shut)***
☐ Type EZHSO-OSX (Spring-to-Open Version with Slam shut)***

Body Size (Select One)

☐ NPS 1 / DN 25***
☐ NPS 2 / DN 50***
☐ NPS 3 / DN 80***
☐ NPS 4 / DN 100***

End Connection Styles (Select One)

Types EZH and EZHSO Only

WCC Steel

☐ NPT (available for NPS 1 and 2 / DN 25 and 50 Body Sizes only)***
☐ CL150 RF***
☐ CL300 RF***
☐ CL600 RF***
☐ SWE (Available for NPS 1 and 2 / DN 25 and 50 Body Sizes only)**
☐ BWE**
☐ PN 16/40 (For NPS 1 and 2 / DN 25 and 50 Body Sizes only)**
☐ PN 25/40 (For NPS 3 / DN 80 Body Size only)**

Types EZHOSX and EZHSO-OSX Only

LCC Steel

☐ CL150 RF**
☐ CL300 RF**
☐ CL600 RF**

Main Valve Disk Material (Select One)

☐ Nitrile (NBR) **(standard)***
☐ Fluorocarbon (FKM)***
☐ Polyurethane (PU)***

Pilot Type (Select One)

☐ Type PRX-120***
☐ Type PRX/120-AP***
☐ Type PRX-125 (monitor override pilot)***
☐ Type PRX/125-AP (monitor override pilot)***

Outlet Pressure Range (Select One)

Type PRX/120 or PRX/125

☐ 14.5 to 26 psig / 1.00 to 1.8 bar, Yellow***
☐ 23 to 44 psig / 1.6 to 3.0 bar, Green***
☐ 41 to 80 psig / 2.8 to 5.5 bar, Blue***
☐ 73 to 123 psig / 5.0 to 8.5 bar, Black***
☐ 116 to 210 psig / 8.0 to 14.5 bar, Silver***
☐ 203 to 334 psig / 14.0 to 23.0 bar, Gold***
☐ 319 to 435 psig / 22.0 to 30.0 bar, Aluminum***

Type PRX/120-AP or PRX/125-AP

☐ 435 to 1160 psig / 30.0 to 80.0 bar, Clear***

Whisper Trim™ Cage Construction (Optional)
[Not available to NPS 1 / DN 25 Body Size]

☐ Yes***

Type SA/2 Elastomer Material (Select One)

☐ Nitrile (NBR) **(standard)***
☐ Fluorocarbon (FKM)***

Pilot Elastomer Material (Select One)

☐ Nitrile (NBR) / Polyurethane (PU) **(standard)***
☐ Fluorocarbon (FKM)***

Travel Indicator (Select One)

☐ Yes***
☐ No***

- continued -

Ordering Guide (continued)

Pre-piped Pilot Supply (Select One)

☐ Yes***
☐ No***

Main Valve Replacement Parts Kit (Optional)

☐ Yes, send one replacement parts kit to match this order.

Pilot Replacement Parts Kit (Optional)

☐ Yes, send one replacement parts kit to match this order.

Regulators Quick Order Guide	
* * *	Readily Available for Shipment
* *	Allow Additional Time for Shipment
*	Special Order, Constructed from Non-Stocked Parts. Consult your local Sales Office for Availability.
Availability of the product being ordered is determined by the component with the longest shipping time for the requested construction.	

Specification Worksheet

Application:
Specific Use _____
Line Size _____
Fluid Type _____
Specific Gravity _____
Temperature _____
Does the Application Require Overpressure Protection?
☐ Yes ☐ No

Pressure:
Maximum Inlet Pressure _____
Minimum Inlet Pressure _____
Differential Pressure _____
Set Pressure _____
Maximum Flow _____

Accuracy Requirements:
Less Than or Equal To:
☐ 5% ☐ 10% ☐ 20% ☐ 40%

Construction Material Requirements (if known):
_____
_____

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